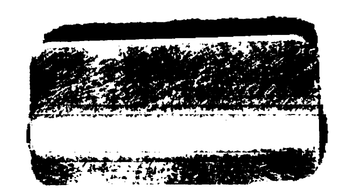

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BRAZILIAN EXCHANGE

THE STUDY OF AN INCONVERTIBLE CURRENCY

BY

J. P. WILEMAN, C.E.

DEDICATED

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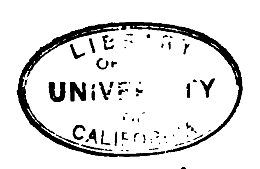
Dr. FERNANDO ABBOTT

Minister Plenipotentiary of Brazil in the Argentine Republic

to whose sympathy and encouragement the author

is deeply indebted.





BUENOS AIRES

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GENERAL

PREFACE.

Of all the phenomena that influence the well-being of Society none are more personal or awake a livelier interest than those that affect the value of the circulating medium, especially in countries where inconvertible paper-money is employed, and where the unceasing oscillations of its value from day to day, and almost from hour to hour, afford a perennial theme for endless conjecture and speculation.

No one that has suffered or profited from the alternative depreciation and appreciation of our circulating medium could have failed at some time or other to speculate more or less vaguely on the true causes that give rise to such instability of value, without, however, generally succeeding in arriving at any satisfactory conclusion, and ending usually in attributing all such variations to the influence of extraordinary rather than natural causes, and of seeking the explanation of the incomprehensible by the aid of the supernatural.

To such reasons must be attributed the excessive prominence that is credited to the influence of Speculation and Politics on the value of the currency, whilst the intelligent analysis of the real causes that alone can affect it in a permanent manner has been almost entirely neglected.

A practical acquaintance in the pursuit of my profession with the unsurpassed natural resources of Brazil not only forced upon my conviction the ultimate splendid destiny of such a country, but impressed upon my mind the anomaly presented by the contrast of its individual prosperity and resources with the national economical and financial disorganisation, and originated a lively desire to acquire a positive conception of the causes by which it has been evolved.

The discussion originated by the Press of Rio Janeiro some two years ago in relation to the extraordinary depreciation of the currency afforded little real information on the subject; whilst the opinions of the different mercantile authorities consulted, when not limited to considerations of a metaphysical nature, might be summed up in the declaration that exchange fell because it did not rise.

An independent investigation appeared, therefore, indispensable if the reason of the why and the wherefore of the unceasing variations of exchange were to be ever satisfactorily accounted for.

A preliminary investigation quickly convinced me of the absolute necessity of disabusing my mind of all preconceived ideas as to the precise and invariable nature of the sequence of economical phenomena as acquired from an acquaintance with the rules and methods deduced by Political Economy from the almost exclusive observation of the phenomena that correspond to metallic or convertible currencies; and that an independent analysis of the manner and method in which each separate real cause influences the value of the currency, and is in turn reacted-upon, was indispensable before any positive conclusion could be reached.

To this end it was necessary first of all to collect the requisite statistics relative to all the different factors that excercise an influence on the value of the circulating medium for a period sufficiently embracing to afford a secure basis on which to found conclusions.

This alone was no mean task; especially in a small and remote place like Rio Grande, where few archives or works of reference are to be found; whilst the minute investigation of the few official statistics available conclusively demonstrated the uselessness of attempting to make any use of them until they had been thoroughly revised and corrected, and their values all reduced to that of an invariable standard.

The period selected for analysis extends from 1860 to 1894, and embraces the economical movement of thirty-five years. These thirty-five years resolve themselves into six distinct periods, during which exchange, or the value of the currency, was almost uniformly rising or falling.

The problem that these six periods present for solution is:— *Given the indisputable fact of the average value that the currency actually attained during each period, what were the real causes that lead to the respective appreciation or depreciation in each case?*

If this can be satisfactorily settled it becomes possible to draw positive deductions on to the influence that similar causes must actually be exercising, and the determination of the oscillations of the value of the circulating medium in the immediate future then becomes a mere matter of calculation, were its factors simultaneously determined.

Although the latter is impossible, because such factors cannot be *precisely* determined even for the present, yet the appreciation of the manner in which the value of the currency is likely to be affected will generally prove to correspond very closely with

facts, unless some important element has been overlooked; and, inversely, the knowledge of the invariable effects produced by determined causes may assist us to minimize or neutralize the influence of causes we cannot wholly control.

The problem is dual; and before the manner in which the ultimate value of the currency has been determined for such separate period can be recognized, the value and influence of each separate factor that exercises an influence on both international exchange and on the local value of the currency respectively must be determined.

Such an undertaking involves, on the one hand, the determination of the balance of international payments, or the country's annual *Activo* and *Passivo*, and, on the other not only the quantity of paper-money in circulation, but its coefficient *per capita* for each separate year of the six periods under analysis.

To arrive at the value of the annual credit or *Activo* it is necessary to determine that of all values receivable, including exports, capital imported for permanent employment in the country whether public or private, and the exportation of bullion, securities and other values. The first can be determined by means of the customs returns; but the questionable nature of the local statistics of foreign trade, admitted by competent local authorities, made it necessary to compare the results thus obtained with those of the appraisements of Brazilian trade by foreign customs. The value of capital imported in the shape of public loans, or for public Companies, has been likewise determined, but that imported privately is undeterminable, as also the amount of bullion exported for which no reliable statistics exist.

To constitute the annual debit or *Passivo* it is necessary to determine the annual value of the interest and amortization of public and private foreign debts, the dividends and profits of foreign public companies, and of all foreign capital employed in the country, as well as that of private remittances, of the bullion imported, and last but not least, of all imported merchandize. It is impossible to determine the value of private remittances, whilst that of bullion imported is also undeterminable from lack of proper statistics. The determination of the other factors is merely a matter of labour and patience.

When once these factors of international payments have been determined it can be decided whether or no the balance has been favourable or the reverse, and its influence on the value of the currency be recognized. The factors that still remain to be determined in order to appreciate the manner in which the local value of the currency has been influenced for each

period are, then, the quantity of paper money in circulation and its coefficient. This has been done by obtaining the quantity of both treasury and bank notes in circulation for each separate year. The population has likewise been determined by allowing an annual unaccumulative increase of 2½ per cent. since the last census in 1872. Some of the conclusions to which the study of the statistics ennumerated inevitably lead are of the most interesting and often-unexpected character. *Apropos,* the deductions as regards the influence exercised by the depreciation of the currency on the value of merchandize imported and exported may be pointed out as entirely opposed to generally accepted ideas on the subject.

When the analysis of the different factors and their influence on the value of the currency was at length completed, it became necessary to account for the variations in the value of the currency by application of the rules deduced to actual facts. It then became evident that no theory that is actually current as regards the origin of the value of inconvertible paper-money could by any ingenuity be brought to invariably account for the rise and fall of exchange, *and that there were many oscillations for which no explanation could he given.*

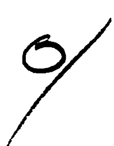
It was, therefore, unavoidable to either attempt to construct a new theory, or abandon the hope of arriving at a logical appreciation of the causes of the depreciation of the currency.

The investigation of these matters could not be effected without a simultaneous appreciation of the financial equilibrium and the causes that have disturbed it.

The conviction with which I started on this investigation, that no misapprehension as to the future of so vast and productive a country need he entertained, has not been disturbed, but strengthened and accentuated by the logic of numbers. The economical and financial disasters of the past are but the consequence of the imperfect comprehension of economic phenomena, and can he easily remedied, and the country launched permanently on the tide of irresistible progress, if Brazilians themselves will but take the trouble to recognize the true causes of the economical and financial difficulties that afflict them, and then resolutely apply the cure.

The almost total absence of statistics in an important and progressive country is an anomaly and an evil. It has already led to false deductions and to mistaken practice in the past, as it must in the future. Few have either the time or the inclination to devote years to collecting the statistics necessary to substantiate their conclusions, and much labour might have

been spared to the author were as much importance attached to commercial statistics as to other factors of scientific investigation. It may, therefore, be permitted to urge on the attention of the competent authorities the necessity of realizing this *desideratum*; and if the work I now have the honor of offering to the public result merely in some reform in this respect, and is of some assistance in enabling others to arrive at positive conclusions as regards the causes that have provoked the financial and economical *debacle*, the labour it has entailed will have been neither lost nor misappreciated. I feel pleasure in recording the obligation I am under to the excellent statistics published by the *Jornal do Commercio* of Rio de Janeiro in its annual retrospect, without which it is doubtful if the compilation of the indispensable statistics would have been possible. These statistics, of which only a summary or average for each particular period is given, are too voluminous for publication in detail. It may be added that it is not pretended that absolute accuracy has been obtained; that is probably impossible for statistics of this character extending back so many years, or at any rate could only be realized by the labour of many years and with access to more ample sources of information.



Rio Grande, 1st March 1896.

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BRAZILIAN EXCHANGE

THE STUDY OF AN INCONVERTIBLE CURRENCY.

INTRODUCTION.

The contradictory opinions and theories current amongst even the best informed as to the causes that have produced and perpetuate the extraordinary depreciation of the currency, and still continue to cause violent oscillations in value, are chiefly due to the failing to perceive the really dual nature of exchange, as quoted in this market, in which the action of two really distinct factors is almost inextricably confused.

Exchange, as quoted in Brazil, really consists of two distinct elements, each of which influences the value of the currency in a distinctly different manner. One, the Real or international exchange, corresponds to the variations of international payments; the other, or Nominal Exchange, varies with the ratio of the supply to the demand for the circulating medium.

The dual nature of Exchange is better comprehended in Buenos Aires, where the same confusion does not exist, owing to the isolation of the two Exchanges, international or real Exchange being alone quoted in pence or francs per gold dollar (peso), and this sold on 'change for currency, the difference between the nominal value and the price realized being termed the premium on gold. Thus the par or nominal value of an Argentine dollar (peso) is 47⅝ pence, and international Exchange oscillates between 48.668d. and 46.582d. a variation of 2.2 % above and below par; whilst the premium on gold, or nominal Exchange, may be anything from zero upwards, and has several times reached 300 per cent.!

The fusion of the two different exchanges in a single quotation, usual in Brazil, undoubtedly obscures and confuses the perception of the true causes that operate the depreciation of the currency and oscillations in its value, rendering it difficult,

and often almost impossible, to distinguish what proportion is due to the variations of International Exchange, and what to the local depreciation of the currency, or Nominal Exchange.

It is, however, absolutely indispensable, in order to form a clear idea of the phenomena of Brazilian Exchange, to arrive at a distinct and positive conception of the existence and nature of these two factors of the value of the currency; as it is evident that every variation of the market rate of Exchange must be either the resultant of these distinct forces acting in a similar or contrary direction; and, consequently, that each factor must be separately analysed, and its range and method of action determined, before the combined effect of both, which determines the current or market rate of Exchange, can be properly considered.

Since the preceding lines were written the annual report of the Minister of Finance (Dr. Rodriguez Alvez), for 1894 has come to hand, from which the following extract is taken:—

"Those who, like Goschen, teach that Exchange is a barometer that indicates unerringly the state of the money-market, the solidity of credit, the rate of discount, and the comparative condition of the currency in different countries, will find some difficulty in applying their rules to the markets of this country. We observe, what is moreover the rule, local quotations of securities well maintained, and foreign quotations rising, with fair sales for export, and withal Exchange falling, and sometimes, as has been lately noticed, the price of coffee falling likewise."

It would be difficult to find a more interesting or better illustration of the misconceptions that result from the custom of regarding the market quotation of exchange as the equivalent of the international exchange, to which Goschen refers, and which is the only exchange *usual* in European countries.

If the necessary distinction be made between nominal and real, or international, exchange, no difficulty will be encountered in reconciling the apparent contradictions, that Dr. Rodriguez Alves discovers, with the oscillations of the market rate of exchange; and the variations of international exchange may then, in Brazil, as elsewhere, continue to serve as the "barometer of its financial and economical condition," without the chance of falling into error, as Dr. R. Alves states, in "pretending to apply to this country the rules observed or followed in Europe:" truly a ridiculous presumption!

It cannot be disputed that simultaneous causes may be at work, some of which tend to depreciate, and others to raise the value of the currency and rate of exchange, and that the ulti-

mate or market rate will depend on the relative importance of one and the other. Thus, a favourable balance of international payments may be causing exchange to rise, whilst a new emission of paper money may be simultaneously provoking a fall; if the influence of the first were the more powerful the market rate would rise, and *vice versa*.

The improvement of international exchange would react on foreign credit, which depends not only on the foreign demand for securities of all kinds, but also on the ability of the debtor to meet his engagements, which improves with a rising rate of exchange; consequently, the foreign demand for Brazilian securities would show a tendency to improve.

The favourable state of international payments, even if it be the exclusive result of an increased volume of exports, may be simultaneous with a positive fall in the prices of certain determined products, and even of the most important staple, coffee, and in fact has often been so, the fall in price, consequent on the increased supply, being compensated by the increase of its aggregate value.

A rise in international Exchange must tend to improve the local value of the currency, when the supply of the circulating medium would exceed the demand, and exchange would consequently fall again unless this were corrected by the automatic regulator provided by the increased demand for, and rise in the prices of local securities, or a fall in the rate of discount, or both.

If, however, the rise in international exchange is, as we have assumed, accompanied by a simultaneous and yet greater fall in nominal exchange, or the local value of the currency, in consequence of some alteration in either the supply or demand for the circulating medium, the depreciation from this cause would exceed the appreciation caused by the improvement in international exchange, and the market rate of exchange would fall.

The fall in the rate of exchange would then be an effect of the alteration of the relation of supply and demand for the circulating medium and not a *cause;* consequently, the demand for local securities and the rate of discount would be unaltered, sustained or weak as before, with a tendency to firmness if the fall in exchange were the exclusive result of emission of paper money on a large scale, as the inevitable speculation that would ensue would raise the prices of all securities, at least temporarily. Admitting the distinct influence of each of the two exchanges, there is then no difficulty in conciliating the phenomena of " well sustained local and foreign quotations of securities and steady sales for export with a falling rate of exchange, and some times with falling prices of coffee itself," nor yet of explaining

these apparent contradictions "by the same rules followed in European markets."

It cannot be denied that Speculation can, and does, frequently affect not only the rate of exchange, but the relations of supply and demand of every description. Its influence, however, on prices, as on the value of the currency, can only be lasting so long as it responds to some real or positive cause for an improvement or the reverse.

Before, therefore, the theory that attributes to speculation almost exclusively the present depreciation of the currency, or a great share of it, can be accepted, it is necessary to prove by something better than mere conjectures that "Exchange," as Dr. Rodriguez Alves elsewhere states, "is not at present the indicator of our true economical situation, but merely reflects the movement of our daily transactions in obedience to various perturbing causes," a statement which appears to be absolutely self-contradictory.



Real or International Exchange

PART I.

Real or international exchange is determined solely by the variations of international payments, and depends exclusively on the *pro* or *contra* of the balance between the annual credit and debit account of the country with all other foreign countries with which it holds relations.

This equilibrium must not, as Goschen points out in his "Theory of foreign Exchanges," be confounded with the exploded theory of the so called balance of trade:—

"The error" says Goschen, " is frequently committed of imagining that international debts arise solely from the importation of merchandise, and of considering the balance of trade purely as a matter of importation and exportation, a simple index of the excess of one over the other." " It is necessary, however, to examine more closely the transactions effected between two countries before forming an opinion as to their mutual indebtedness. ¡It will be found, on studying the matter, that this situation does not result so much from the respective exchange of products, as from the relation between the total expenditure of each with the other, be it for the payment of products, for the purchase of shares or bonds, for the settlement of profits and commissions, or for the expenditure of residents abroad, or travellers; in a word, for all the payments or promises to pay due in each country. The idea of *Debt*, in itself, should be lost sight of; it is the engagement undertaken that we must consider, and this engagement produces identical effects whatever may be its origin."

" Payments due from one country to another, whatever be their object, have precisely the same effect as direct payments tor imports, so that the *reciprocal debts of two countries may more or less balance, although one has imported much more merchandise than it has furnished in exchange.*"

In a similar spirit Tesserenc du Bord remarks that " La balance du Commerce, qui n'est pas renfermée dans les chiffres de douane, se compose d'une foule d'éléments."

It is then, the see-saw of this equilibrium between the annual international Debit (Passivo) and Credit (Activo) which comprises on the one hand all descriptions of payments due on account of interest and amortisations of private or public foreign debts, the guarantee of interest on foreign capital, dividends and private

remittances of all kinds, and all bullion and values imported, when the former is not intended to be permanently employed in the country as fresh capital, as well as the value of all imported merchandise, and, on the other hand, all payments receivable on account of exports of all descriptions, including merchandise, bullion, and securities, and the value of all foreign capital imported in the shape of loans, or otherwise, for permanent employment in the country, that determines the relation of the demand and supply of bills, and regulates the variations of international exchange; which will be at par when they balance, favourable when the Credit exceeds the Debit, and *vice-versa.*

Without pretending to be able to collect all the innumerable *data* indispensible to be able to strike a precise balance, and determine experimentally the oscillations that this equilibrium must have experienced in the past, it appears possible to approximately determine the value of the most important factors, and to demonstrate their action in determining the value of the currency, and, inversely, to determine the real causes that can alone affect its value in the future.

The oscillations of international exchange are, then, determined solely by the supply and demand for bills in the market, and only transitorily by Speculation, or other influences, that have no real cause for their basis.

When there is little or no bullion available for export the whole of the foreign engagements, which constitute the annual Debit or Passivo, must be met by Exports alone, unless supplemented by the proceeds of loans or other foreign Capital.

A general impression is current, especially in mercantile circles, that the real cause of the almost chronic depreciation of the currency is to be traced to an equally chronic excess of imports over exports; and that this disequilibrium has not only always existed, but that it is *inevitable,* because national production is insufficient to satisfy local consumption and the demand for indispensable foreign imported commodities as well; whilst it is believed that the real cause of the periodical necessity of recurrence to foreign credit is to be traced to the necessity of making good the deficit thus created, and the only remedy to be the reduction of the value of imports, by development of local manufactures.

This survival of the antiquated theory of the balance of trade would be scarcely worth contradiction, even if it amounts to a virtual confession of national bankruptcy, were it not that any attempt to reduce its principles to practise by still further exaggeration of protective policy is calculated to render the situation, already sufficiently critical, still more dangerous.

It seems clear, and should be especially so in mercantile circles, where the balance of trade theory is clung-to with so much pertinacity, that each year's international operations *must*, with trifling exceptions, be annually liquidated, and that, consequently, exports must, with or without the adventitious aid of foreign capital, suffice to pay not only for all imported goods, but likewise to satisfy all other foreign engagements, or some must remain unpaid.

That National resources have to the present sufficed, with the aid of foreign capital, to satisfy all foreign demands or obligations is indisputable, as that they must continue to do so were no assistance from foreign capital to be obtained.

What therefore demands investigation is the origin of the debt or deficit; whether it is, as the supporters of the "balance of trade" assert, the *effect* of an inevitable excess of imports, or whether it is not rather the *cause* of that excess, and the effect of a distinctly different series of phenomena, the failure to realize an equilibrium between local expenditure and revenue.

The economical situation may be excellent whilst the financial is disorganized; the balance of international payments be undeniably favourable whilst administrative deficits make an appeal to credit inevitable. The moiety of savings thus set free, by the substitution of foreign credit for taxation, will still further increase the demand for imports, which will persist so long as foreign loans continue to be regarded as legitimate substitutes for ordinary revenue and taxation.

That there, however, is absolutely no ground for the popular conviction that the value of imports is chronically in excess of that of exports is easily proved by reference to the relative statistics for the last 35 years.

	PERIOD	OFFICIAL VALUATION OF EXPORTS Gold	OFFICIAL VALUATION OF IMPORTS Gold	RATIO OF VALUE OF IMPORTS TO EXPORTS
		Rs.	Rs.	Rs.
1	1861—1864	562. 797: 447$	459. 108: 000$	81. 5 %
2	1865—1869	733. 937: 583$	723. 646: 000$	98. 5 %
3	1870—1875	1247. 117: 691$	931. 208: 000$	74. 6 %
4	1876—1885	1952. 568: 266$	1739. 914: 000$	91. 4 %
5	1886—1889	913. 549: 029$	814. 047: 927$	89. 1 %
6	1890—1892	796. 601: 767$	849. 240: 425$	106. 6 %
	1893	291. 830: 271$	271. 564: 457$	77. 2 %
		649. 452: 054$	5788. 728: 809$	89. 1 %

The aggregate value of imports, therefore, for 35 years is according to the official valuation, which is the least favourable, 89,1 % of the value of exports for the same period; and proves that the balance of trade, if limited to these two factors, is indisputably favourable, and consequently that the mercantile theory that attempts to account for the depreciation of the currency by a suppositious excess of imports over exports, to be absolutely untenable, and may, therefore, be finally dismissed as in contradiction to facts.

The question, however, that still remains to be settled is whether the balance of 11 % that remained over after paying for imports, was sufficient to meet all other descriptions of foreign expenditure; and if not, how best it can be rendered so without the necessity of periodic recurrence to foreign credit, to which there must necessarily be a limit, that sooner or later must be reached.

Stewart Mill has ably described the mechanical manner in which international exchange must, when once disturbed, immediately proceed to right itself, just as water is said to seek its own level.

"As soon as the excess of the demand over the supply of foreign bills indicates a disturbance of the equilibrium, foreign exchange falls, and gold is exported to make good the difference. The export of bullion reduces the home circulation, and produces a fall in prices at home, and a corresponding rise abroad; in consequence there succeeds an increase of exports and a decrease of imports, which will continue until the balance is again struck, and exchange return to par."

Such is the process by which international exchange invariably readjusts itself in countries possessing a metallic or convertible currency.

When the currency is wholly inconvertible, and little or no bullion exists for export, the process is different. There then being no disturbance of the volume of the currency there will be no alteration of metallic prices at home or abroad on this account. No gold being available for export to make good the deficit, this can only be liquidated by payment in commodities, entailing either an immediate increase of exports, a decrease of imports, or both. This process is, however, necessarily slow, as it is impossible either to spontaneously increase the volume of exports, nor to suddenly reduce that of imports, which depends on orders previously given.

Unless, then, private accumulations suffice to cover the deficit, some debts must remain unpaid until the supply of bills again balances the demand; and as public engagements are more

likely to be respected, regardless of cost, the sufferer from the scarcity is, usually, the commercial class.

When once international exchange loses its balance and commences to fall in countries that possess an inconvertible currency and little or no gold, nothing can arrest the fall except re-establishment of the equilibrium by means of the decrease of imports, or increase of exports, or both, or else by the increase of assets available for liquidation of the deficit, by the employment of foreign capital, or other arrangements of a palliative nature. The negotiation of a foreign loan, however, although it might serve to stop a gap for awhile, and liquidate outstanding debts, could not permanently arrest the unfavourable course of exchange unless the equilibrium between the annual foreign debit and credit account were also simultaneously and permanently adjusted. If it were not, as soon as the proceeds of the loan were exhausted, real exchange must commence to fall again with increased violence, owing to the accession of foreign burdens caused by the loan itself.

When the currency is wholly inconvertible, and there is little or no gold for export, it is clear that the fall of exchange is not the result of an increase in the demand for bullion alone, but of that for *exports* of *all descriptions*, of which bullion is merely the most important and representative item. The demand for exports increasing and exceeding the supply, (as long as the foreign demand remain unaltered) their prices must then rise in proportion to the excess, including that of bullion. The rise in the prices of export and bullion, and the consequent, but not proportional, depreciation of the currency, must, therefore, continue to accumulate until in some manner an equilibrium is arrived at between the supply and demand for bills.

By convention, and for convenience, gold has been adopted as the standard of international exchange, by which the values of different kinds of exports are correlated; consequently, the increased demand for exports, which the disequilibrium of international payments creates, is represented by a rise in the price of bullion, and its influence on the currency by a fall in the rate of exchange; but it is an error to suppose that the rise in the prices of exportable commodities is the *necessary consequence* of a fall in exchange, when in reality the rise of prices of both exports and bullion is *simultaneous*, and obeys the same causes.

It may appear to be a matter of little importance whether exports rise simultaneously for the same reasons that gold rises in price, or whether they rise later in consequence of the rise in the price of bullion; but, as will be seen later on, when it become

necessary to treat of nominal exchange and the effect of the oscillations in the value of the currency on prices, a thorough comprehension of the sequence of the phenomena that result in a rise or fall of real exchange, will materially assist in appreciating the cause and effect of other phenomena likewise. Similarly when, on the other hand, the supply of bills exceeds the demand, the local prices of bullion and exports must fall, and the value of the currency improve. The depreciation of the currency is limited only by zero, whilst the highest value it can reach is, what is termed, the maximum "Gold point," which is the *par* value established by law, *plus* the cost of importing bullion, and appears to be for Brazil between 27½d. and 28d.

In order therefore to raise the value of the currency, when once depreciated, by the natural methods of increased production, it is not sufficient to arrive at a state of mere equilibrium; there must be a positive excess in the supply of bills, and therefore of exports, which will only continue to raise the rate of exchange and improve the value of the currency so long as that excess persist.

Until therefore either by means of a shrinkage of imports or other foreign payments, or an increase of exports or other resources, the equilibrium of international payments be definitely attained, real exchange must continue unfavourable, with perhaps occasional intermittent recoveries due to the adventitious assistance of foreign capital.

For the facility of systematic analysis the series of 34 years comprised between 1860 and 1894, has been divided into six different periods, during which Exchange was alternately rising and falling.

1st	period	1860–64	exchange	oscillated	between 25d. and 27½
2nd	"	1865–69	"	fell from	*par* to 14d.
3rd	"	1870–75	"	rose from	14d. to *par*
4th	"	1876–85	"	fell from	*par* to 17½d.
5th	"	1886–89	"	rose from	17½d to *par*
6th	"	1890–94	"	fell from	*par* to 9d.

This period of 35 years is sufficiently comprehensive to afford the indispensable facts, by which the accuracy of deductions can alone be verified; and which alone can give to economic theories the authority of indisputable truth, that is not always their characteristic.

The par value of mil reis was in 1854 fixed at 27 pence.

Movement of EXPORTS from [illegible]

AVERAGE POPULATION, INCREASE 2½ % P/ANNUM.	PERIOD	OFFICIAL VALUATION OF EXPORTS ANNUAL AVERAGE	COEFFICIENT PER CAPITA	RATIO OF IMPORTS TO EXPORTS	[illegible]	[illegible]	[illegible]	[illegible]
		Rs. gold	Rs. gold	%	Sa[illegible]			
8.250:000	1st 1861–1864	140.699:362$	17$817	81.5				
8.940:000	2nd 1865–1869	146.787:516$	16$419	98.5	3[illegible]			
10.117:000	3d 1870–1875	207.852:948$	20$545	74.6	2[illegible]			
12.125:000	4th 1876–1885	195.256:826$	16$103	91.4	3[illegible]			
13.875:000	5th 1886–1889	228.387:257$	16$460	89.1	2[illegible]			
14.750.000	6th 1890–1892	265.533:922$	18$002	106.6	3.054:282	32$156	99.213:491$	17.0
15.300:000	7th 1893	291.330:271$	19$073					10.0
	1861	158.105:433$	19$519					
	1861–1892		AVERAGE	89.1				

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thing—alcohol).

The foregoing table conclusively proves that during periods of high or rising exchange the value of exports has always exceeded that during the successive periods of low or falling exchange.

During the three periods 1, 3 and 5, when exchange was rising, the average value of exports was Rs. 18$274 gold per capita, whilst during the periods 2, 4 and 6 of falling exchange, the average value of exports did not exceed Rs. 16$831.

This unexpected result, at first sight so opposed to the popular idea that supposes the value of exports to increase invariably as exchange falls, without taking into account the origin of the rise or fall of exchange, is, however, as a little reflexion will show, correct and logical. A low rate of exchange and a decreasing value of exports may be the effect of low foreign prices of exports, and may, therefore, be simultaneous with a positive increase of production and of the volume of exports, if the fall of foreign prices is compensated by the rise of exchange, and consequent rise of local, or paper, prices. In this case there would be no reduction in *nominal* profits and, therefore, no reduction in the volume of exports, although there might be one in their value. Thus during the 4th period, 1875 to 1885, exchange fell from *par* to 17½ pence, and the value of exports from Rs. 20$545 gold per capita, in the previous period, to Rs. 16$103 gold, in consequence chiefly of the depreciation of 48 % in the foreign price of coffee. In lieu of a shrinkage of coffee shipments, however, we find that they rose from 2.718.495 sacks, the annual average for the previous period at the port of Rio, to 3.907.846 sacks.

When foreign prices rise or remain the same, and the fall of exchange is the exclusive result of a local depreciation caused, for example, by excessive emissions of paper-money, real profits will either be raised, or will not be affected at all, but nominal profits, that is profits estimated in the depreciated currency, must increase; production, consequently, will receive a great impulse.

Notwithstanding in the 2nd period 1865-1869 the fall of exchange was the result of excessive foreign payments, excessive emissions, and was also affected by a slight fall in the prices of coffee; the value of exports, however, fell from 17$817 gold per head, in the former period, to 16$419, when an increase would have been expected. If exports did not positively increase in this period, a sufficient explanation would be probably found in the influence of the Paraguayan war and taxation on the cost of production and labour, combined with the fall in the price of coffee.

The fall of exchange in the 6th period (1890-1892) was the almost exclusive effect of excessive emissions and foreign expen-

diture, as the prices for the staple export had fallen only from 33$136 gold to 32$156 per 60 kilos; consequently, production received a great impulse and both the volume and value of exports increased rapidly, coffee shipments increasing during this period from an average of 2.990.965 sacks, to 3.054.282 sacks, whilst the value of exports rose from 16$460 gold per head, during the previous period, to 18$002 per head.

A rise in the rate of exchange will only affect production unfavourably if there is a positive reduction of nominal profits in consequence. If, therefore, the improvement in exchange is the result of a reduction of the volume of the currency, or of the importation of foreign capital, foreign prices of exports remaining the same, nominal profits must be reduced and exports will fall off. Thus in the 5th period, 1886-1889, exchange rose rapidly from 17½d. to *par*, or 42 %, and the price of coffee, the principal export, also rose *from* 25$836 to 33$196 gold per 60 kilos, or 29 %; consequently, the rise of foreign prices, 29 %, did not compensate for the loss in nominal prices produced by the rise of exchange, equivalent to 42 %, profits dropped, and production fell off, the annual shipments of coffee at Rio, being only 2.990,965 sacks compared with 3.907.846 during the previous period; and, in spite of the notable rise in the price of coffee, the value of exports remained almost stationary.

If, on the contrary, the improvement in exchange is the effect of high foreign prices of exports there will be not only no reduction of nominal prices, but may be considerable rise; consequently, there will be no falling off of profits, the value of imports will greatly increase, whilst their volume will suffer no reduction. Thus, in the third period 1870-1875 exchange rose rapidly from 14d. to par, in consequence of high foreign prices of coffee, which rose from Rs.26$480 to Rs.38$130 gold per sack; the value of exports rose, consequently, from 16$419 gold per head, during the previous period, to 20$545, whilst shipments of coffee remained about the same, at 2.718.495, compared with 3.055.000 sacks for the previous period.

The depreciation of the currency, it may be concluded, favours production and stimulates exports when it does not reduce nominal profits, and, consequently, *the fall of exchange, that is the result of a local depreciation only, is invariably favourable, and acts as an equivalent bonus, or premium, to production and exports.*

The explanation of the advantage that a depreciation of the currency will sometimes confer on exports is to be found in the differential rise of prices that such a fall of exchange creates.

The prices of exports and bullion rise uniformly and simulta-

neously, whilst those of imports rise less, and more slowly, and the prices of other products of purely local production and consumption, such as certain food staples, as well as local expenditure on account of rent, labour, taxes, etc., which constitute the major part of the cost of production, rise still less, and still more slowly; *so that the difference between the rise in the price of exports and that of their cost of production constitutes a positive and equivalent increase of profits.* The reason and sequence of this differential rise of prices will be determined later on.

The influence of the value of the currency on Imports

The rise and fall of international exchange does not directly affect the demand for imports as it does that of exports, but only indirectly, and in consequence of the rise in the nominal price of bullion, by which a part of the cost of imports is regulated. The prices of imports will therefore rise in consequence of a depreciation of international, or nominal exchange, but not in the same ratio as those of exports and bullion itself.

In consequence of the rise in the nominal prices of imports it would be natural to expect some reduction in the demand to follow any persistent fall of exchange; but, in reality, this does not occur; and, on the contrary, the value of imports has always increased as exchange falls.

The movement of Imports has been during each of these periods as follows:

	PERIOD	ANNUAL AVERAGE VALUE OF IMPORTS OFFICIAL VALUATION GOLD	ANNUAL AVERAGE COEFFICIENT OF IMPORTS PER CAPITA GOLD	RATIO OF VALUE OF IMPORTS TO EXPORTS
		Rs.	Rs.	°/o
1st	1861—1864	414. 108: 000 $	13. $ 912	81.5 %
2nd	1865—1869	144. 729: 200 $	16. $ 261	98.5 %
3rd	1870—1875	155. 201: 334 $	15. $ 342	74.6 %
4th	1876—1885	173. 991: 400 $	14. $ 349	91.4 %
5th	1886—1889	203. 511: 982 $	14. $ 667	89.1 %
6th	1890—1862	283. 080: 142 $	19. $ 191	106.6 %
	1893	271. 564: 457 $	17. $ 749	93.0 %
	1861—1893	Average	....	89.1 %

This table shows conclusively that during the periods of low exchange, in place of any decrease of the value of imports taking place, there is a decided tendency to increase the demand, in spite of the rise in nominal, or paper prices.

During the three periods 1, 3 and 5, when exchange was high

or rising, the average annual importation per head was Rs.14$640 gold, against Rs.16$617 gold per head for the three periods of falling and low exchange, Nos. 2, 4 and 6.

During the two periods Nos. 2, and 6, when exchange fell to lower rates than in any other, the consumption of imports reached the highest rates registered, of Rs.16$261 and 19$191 gold per head.

When the fall of exchange is caused by a reduction in the value of exports themselves there will be no increase of imports, as occurred in the 4th period, 1876-1885, when the foreign prices of coffee suffered a great depreciation; because, not only in this case do the prices of imported merchandise rise as exchange falls, but their value is also raised by the depreciation of exports, so that the rise in prices of imports is simultaneous with a reduction of the means of purchase, and, consequently, the demand must fall off, as in 1876-1885, when the coefficient of imports fell from 15$342 to 14$349.

This stereotyped tendency to increase the consumption of imports precisely when a decrease would be expected and desirable, is one of the many paradoxes of inconvertible currencies; and, although at first sight, it may seem to be a *cause* rather than an effect of the fall of exchange, a little further analysis proves the contrary.

At the same time this undeniable tendency demonstrates the hopelessness of expecting to redress the balance of international payments by means of the reduction of imports, unless special measures are taken to secure it; and it undoubtedly constitutes one, if not *the* chief difficulty in devising or executing any policy directed to the amelioration of the value of the currency and improvement of exchange.

The *rationale* of this paradoxical increase, in lieu of decrease, of imports when exchange falls, is as follows.

As exchange falls the prices of exports rise simultaneously in a similar ratio, whilst those of imports rise also, but in a less ratio. The duties on imported merchandise having been estimated on a gold basis (24d.), but being payable in currency at its nominal value, their real or metallic value increases as exchange rises, and *vice-versa*. In addition to this very considerable advantage gained by imports, all that part of the exclusively local cost of imports, such as discharge, storage, commissions and local profits, which are likewise payable in currency (and at a high rate of exchange often constitute the greater part of their local cost) does not rise in the same proportion as the prices of exports, or that of gold, for reasons that will be explained later on:

In consequence, only the initial foreign cost of imports delivered in a Brazilian port will rise in *precisely the same* ratio as exports and bullion, whilst the local cost, which includes all other expenditure, will have risen much less, if reduced to its real or equivalent gold value, and the total increase of the cost and prices of imported merchandise will, therefore, be less than that of exports, and these will then exchange for a larger quantity of imports than previously. The demand for imports will, consequently, continue to expand in spite of the rise that would have occurred in their nominal or currency prices, and of all attempts to maintain the nominal value of duties on a par with their original, or real, value by the imposition of surtaxes, so long as exchange continue to fall; because the rise in the nominal prices of exports is accompanied by a positive increase of *Value*, and, consequently, the same EXPORTS will purchase more IMPORTS than previous to the fall of exchange, and more will be imported.

In addition to these real causes the fall of exchange will affect consumption in another, and less logical manner. Even if it be supposed that the fall of exchange operates no disturbance in the relative *values* of imports and exports, and that the prices of both, as well as of labour and all products of purely local consumption, have risen simultaneously and uniformly, when there could be no real increase of profits possible, even so the apparent or *fictitious* increase of profits, reckoned in paper money as it always is, will produce precisely the same effect, as far as consumption is concerned, as a real and positive increment, and the consumption of both imports and local products will increase at the expense of profits.

To take an example: A farmer, who at the cost of Rs. 5:000$ produced exportable merchandise of the value of Rs. 10:000$, when exchange stood at 20d. would receive for his produce Rs. 20:000$ if exchange fell to 10d. whilst his expenditure, or cost of production, would have risen to Rs. 10:000$. In the first instance his profit would be Rs. 5:000$, and in the second Rs. 10:000$; and, although, if reduced to their real or gold value, the two would be identical, the nominal increase of Rs. 5:000$ accruing in paper-money would produce all the effect of a true increase, and the farmer would consequently be inclined to spend, and *will* spend, a greater proportion of his profit than formerly, forgetting or ignoring that the value of profit has declined in the same proportion as that of the currency, and that, if he now realizes 10:000$ when he formerly made only Rs. 5:000$, and spends Rs. 5:000$ when he previously spent only Rs. 2:000$, the balance of Rs. 5:000$ saved is really less

than the Rs. 3:000$ he formerly allowed to accumulate when Exchange was at 20d.

In practice, however, neither the prices of imports, nor of commodities exclusively produced and consumed in the country rise precisely in the same ratio as those of exports and bullion, so that in addition to the *nominal* profit due to the deceptive operation of the currency, there is also a real accession of profit that results from the increased *value* of exports, both of which concur to swell the demand for imported goods.

Later on we shall have occasion both to analyze the cause and sequence of this differential rise in prices, and to corroborate our deductions by facts.

It seems, then, indisputable that a lower rate of exchange (that is neither the result of excessive foreign expenditure nor of a fall in the foreign demand for and prices of exports) not only fosters production and exports, but if a larger consumption of imports is any test, actually improves the condition of the masses, as is evidenced in their greater potentiality for purchase and consequent enhanced comfort.

That these advantages are obtained spontaneously, without any individual loss, is not pretended. The loss, whatever it is, will fall mostly on profits, which will be greatly reduced if measured by their metallic or real value, though part will fall on the holders of public securities, fixed incomes, and creditors generally.

The influence of Export duties on Exchange

A duty on Exports, or an increase of duties, must raise their cost at least by the amount of the duty or increase. The foreign demand remaining the same, profits must then suffer, exports and the supply of bills fall off, and, the demand for bills remaining the same, real Exchange will fall.

The fall in international, or real, Exchange will raise the cost of imports, but not in the same proportion as the price of exports had fallen; the nett result of the duty will consequently be a shrinkage of both exports and imports, and a fall in Exchange in proportion to the difference between the new ratio of the supply to the demand for bills, thus determined.

PERIOD		RATIO OF DUTIES TO THE REAL (GOLD) VALUE OF EXPORTS	COEFFICIENT OF EXPORTS PER CAPITA	EXCHANGE
1st.	1861 - 1864	6.7 %	Rs. 17$817	high
2nd.	1865—1869	6.8 %	" 16$419	falling
3rd.	1870—1875	7.8 %	" 20$545	rising
4th.	1876—1885	7.3 %	" 16$103	falling
5th.	1886—1889	7.0 %	" 16$460	rising

The variations in the percentage of duties recovered on the real value of Exports has never exceeded 1 %, and are, consequently, too small to affect appreciably either the foreign demand for Exports or the rate of Exchange, neither of which shows any signs of having been influenced by the alterations of duties.

The Influence of Import Duties on real Exchange.

A duty, or the increase of duties, on imported commodities will raise their cost by at least the equivalent of the real value of the increase. In consequence the prices of imports will rise, the demand for imports decrease, and that for bills fall off. The increased cost of imports, will raise the cost of Exports, but in a less degree than that of Imports, because only that part of the cost of production will be affected that is attributable to the initial foreign cost of the imported commodities employed in production, the other or purely local expenditure being little influenced thereby. The increased cost of exports will affect the foreign demand and reduce the supply of bills, but in a less ratio than the demand has been simultaneously reduced; consequently, the rate of exchange must improve, but not in a direct ratio to the reduction of foreign payments created by the decrease of imports. If then, the reduction of the demand for bills be represented by 1, and that of the supply by ¼, the improvement in Exchange will be in the ratio of ¾ : 1.

The nett tendency of an increase of duties on imported commodities will, therefore, be to create a rise in the rate of Exchange in proportion to the ratio between the decrease of the demand for bills to that of the supply, and a ***simultaneous decrease in the volume and value of both Imports and Exports.***

This result will be similar, but not identical, whether the currency be metallic or inconvertible. In the former case the ratio of the increased cost of Exports to that of Imports will be constant; and in the latter will vary with the value of the currency, increasing as exchange rises, and *vice-versa,* because the nominal value of the purely local cost of Exports, which is also the greater, neither falls nor rises precisely in an inverse ratio to the variations of the value of the currency, but in a less ratio.

PERIOD		Ratio of value of Duties to Imports		Coefficient of Imports per capita	Ratio of value of Imports to Exports	State of Exchange
		Real	Nominal			
		%	%		%	
1st	1861—1864	25.6	25.0	R gold	81.5 %	high
2nd	1865—1869	20.6	25.8	13$912	98.5 %	falling
3rd	1870—1875	32.5	37.1	16$261	74.6 %	rising
4th	1876—1885	30.2	36.5	15$342	91.4 %	falling
5th	1886—1889	41.3	46.5	14$349	89.1 %	rising
6th	1890—1892	26.0	44.0	14$667	106.6	falling
	1893	30.7	73.0	19$190	93 %	
				17$749		

It will be observed that the ratio of the value of duties to that of imports is divided into two columns, one termed the *Real*, which is the ratio between the real or gold value of duties and that of the imports themselves; and the other the *Nominal*, or ratio between the nominal or currency value of duties and the real value of imports, which is that of the official returns.

It is important to notice this distinction, as the confusion of one with the other many easily lead to false conclusions.

During the three periods of high or rising exchange, Nos. 1, 3, and 5, the average real rate of duties was 33.1 °/₀; and during the three periods of falling exchange 2, 4, and 6, was only 25.6°/₀. During the first three periods of high duties and high, or rising, exchange, the consumption of imports was 14$640 per head; and, during those of low duties and falling exchange, 16$606 gold per head.

If the consumption of imports be analyzed in detail, its decrease will not be always found to correspond to an increase of duties; but it must be borne in mind that there are many other causes acting simultaneously on real exchange itself, some favourably and others unfavourably, and that the market rate is the resultant of all the different causes that influence both real and nominal exchange, of which duties are but a single item.

The influence that excessive import duties have been shown to exercise on the volume of and demand for exports, though little appreciated and generally misapprehended, is unquestionably the cause of the almost invariable failure of attempts to redress the balance of trade by ultra-protectionist or prohibitory tariffs; and explains why the decrease of imports aimed-at is almost always accompanied by a corresponding, but undesired, shrinkage of exports.

The excessive taxation of imports not only reduces the foreign demand for exports by raising their cost, but also positively diminishes the purchasing potentiality of foreign consumers by limiting the medium by which they effect exchanges.

The deplorable effects of such a policy on trade and prosperity have never been more forcibly illustrated than at the present day in Spain and France, where protectionist doctrines and practices have been pushed to an extreme limit, only exceeded in the United States.

In Spain, to quote the "*Economiste,*" under a liberal custom tariff, inaugurated in 1869, the value of imports had risen uninterruptedly from 442.263,313 pesetas to 816.666,901 pesetas in 1882 and 1.018,770 in 1891; whilst exports had increased from 266.552,600 pesetas to 765.376,887 in 1882 and 932.245,001 pesetas in 1891; so that, in spite of revolutions and "pronunciamentos,"

the steady progress of foreign trade never slackened from 1859, whilst the customs revenue also followed the same ascending scale, from 40.000,000 pesetas in 1869 to 98.000,000 in 1891.

In the year 1892 the new and ultra protectionist tariff came into force, which, according to its partisans, was to "make Spain more prosperous than ever, preserving for Spain alone her own markets and those of her colonies, whilst obliging foreign consumers to contribute to the administrative expenditure of the country by heavy taxation of their goods imported into Spain, unable as they would be, to discontinue the importation on their part of the wines and other *indispensable* natural products, that constitute 80 % of the total exports of the country, and confer a practical monopoly!"

The figures of only 18 months' experience of the protectionist policy have painfully demonstrated their mistake, and reveal a decrease in every class of imports of 21.6 % of their former value, *whilst the decrease in the value of exports has been 21.1 % or only* 0.5 % *less than that of imports*, being precisely most accentuated in the very industries which were supposed to constitute a virtual monopoly, and the products of which were judged to be indispensable to foreign consumers, no matter what the imports might be; Sherry shewing a decrease of 40 %, and common wine of 60 % in the value exported.

	1891	1892	1893	DECREASE 1891-1893
	Pesetas	Pesetas	Pesetas	
Value of imports.........	873.834,000	751.724,000	684.824,000	21.6 %
Value exports.	803.815,000	663.033,000	626.000,000	21.1 %
Value of exports of Sherry......	29.279,983	23.087,880	17.449,680	40 %
Value of exports of common wines.....	277.038,575	117.720,178	90.574,988	60 %

If we now turn to France, we find a similar state of things to exist. The United States Consul in Roubaix, who will not be suspected of free-trade tendencies, in his annual report to his government in 1894, states that: "The financial crisis (in France) is contemporary with the new ultra protective tariff,

and the supporters of this tariff are called upon to explain the fact that, from the commencement of the years 1892, which was the date of the enactment of the new tariff, until the 30th September of 1894, there was a falling off in exports of more than 699.000,000 francs, taking the year 1891 for comparison. The Chamber of Commerce of Rheims has sent delegates to the Ministers of Commerce and Foreign Affairs to devise means to ameliorate the situation of that Department, which suffers from a diminution in the demand for its champagnes, while its woollen industries, which are very important, are undergoing an actual crisis! Much was hoped from the reductions effected in the tariff of the United States (in 1892,), but up to the present time these hopes have not been realized, and reports of commercial travellers from the United States are uniformly discouraging. To add to the chagrin of the Roubaix manufacturers the reports received from Bradford, their old-time rival, are to the effect that business with the United States is most encouraging."

Protection to National industries at the expense of foreign imports must always be popular, appealing as it does to the chauvinistic sentiment dormant in every nationality, as well as because its true effects are generally misapprehended. It can however, be rarely advantageous, because the apparent advantages, gained by the reduction of imports, are mostly lost again by the falling off of exports.

The adoption of an ultra-protectionist policy in Brazil could not, moreover, considerably reduce the volume of any class of imports, except such as are not produced at all in the country; and, as regards others, would only succeed in raising their cost, as the country is not, and cannot be, in a position to replace the greater part of the absolutely indispensable foreign imported commodities by local manufactures or produce, at least for many years to come.

Although the virtual monopoly by Brazil of two important products, coffee and rubber, may, it is true, minimize the evil influence that a protective or prohibitive policy as regards imports would certainly exercise on exports, it cannot be relied on to neutralize it; as the experience of Spain with its sherry, and France with its champagnes has already evidenced.

Nevertheless, the necessity of realizing, by means of increased duties on imports, the indispensable financial and economical equilibrium may make such a policy an unavoidable evil, that can, however, be considerably mitigated by taking the necessary precautions to prevent it from deteriorating into an exaggeration of protectionism, never intended.

The increase of duties on imports, whatever may be its object,

unless carefully provided against must act as a tax levied on all consumers for the almost exclusive benefit of local industries, thus protected from foreign competition.

The rise in prices of all such imports as are likewise produced in the country, consequent on the increase of duties, will not be confined to the imported goods only, but will extend to the whole stock; and, thus, a specific tax on imports, originally intended to increase the revenue, will raise the cost not only of the imported, but also of the similar local product: this latter moiety of the tax, however, will yield no increase of revenue to the State, but merely add the equivalent of the duty, or thereabouts, to the profits of that particular favoured industry.

To take a concrete example. The present duty (1884) on lard is 200 reis per kilo, or 1$000 per barrel of 5 kilos. The imports from the United States are about 8.000,000 kilos, or 1.600,000 cases of 5 kilos. Supposing the home production to be one half, or 800.000 cases, an increase of 25 % of the duty would raise its cost to 1$250 per case. In consequence, the price of lard would rise by value of the increase of duties, which would be equivalent to a tax on consumers of 3.000:000$, of which, however, only 2.000:000$ would go to increase the revenue, the balance of 1.000:000$ going direct and intact into the pockets of the home producers, thus swelling their profits by an wholly unearned and unmerited increment!

The rate of wages and profits will rise in that particular industry, but at the cost of a proportional loss to all others not equally protected; moreover the enhanced rate of profits will attract capital to that particular industry, and production will be greatly stimulated, imports fall off, and revenue suffer by the very measure intended to promote it.

If, however, no other means of raising the necessary revenue exist, and the increase of import duties were determined on as a purely fiscal measure, and with no ulterior intention of yet further increasing protection to national industries, the only means to counteract the partial and inequitable influence of such a tax would be by the *simultaneous imposition of an excise duty equivalent to the increase of duties on imports.*

Such a tax would doubtless produce a considerable revenue without inflicting either injustice or injury on any individual or class, and would be similar to the Excise taxes imposed in England and India on national production in cases where a duty is recovered on similar imported goods, such as wines, spirits, and substitutes for coffee.

Let us now suppose for simplicity of round numbers that, in a

country whose sole export is coffee, and sole import is cloth, exchange stands at 20d. per 1$000, and suddenly falls to 10d. in consequence of the excess of the demand for bills to the supply, which we may likewise suppose to be equivalent to 50 %.

In order to restore the equilibrium without any increase of exports, 50 % must be deducted from the purchasing power of exports, and, in consequence, these will now only exchange for, or cover, one half the former value of imports.

This reduced quantity of imports must, however, re-exchange for the whole original value of exports, or its equivalent, unless a loss is to remain on the operation. One half of the coffee exported would, therefore, be appropriated to the liquidation of outstanding liabilities, and the other half only will be available for purchase of imports, and the half sack of coffee will, therefore, only realize one half piece of cloth. This half piece of cloth, must, however, exchange for the equivalent whole of sack of coffee, and must be sold at that rate.

Gold will, in consequence of the fall of exchange, have risen in value, so that £1 will now be worth Rs.24$000 in lieu of Rs.12$000, and the price of coffee and of all exports will have risen in similar manner to Rs.24$000 per sack, which must therefore be the value of half a piece of cloth; so that a whole piece will have risen from Rs. 12$000 to 48$000, and will continue at this price so long as foreign quotations remain unaltered and the deficit of 50 % in the supply of bills persist.

If the deficit were liquidated by an equivalent increase of 50 % in the value of exports, then the increased supply would cause a fall of prices abroad, to say 18 shillings per sack of coffee, which would be, *minus* expenses, the metallic price of coffee in the exporting country also. In consequence, 1½ sacks of coffee would now only realize 27 shillings, from which must be deducted 10 shillings for liquidation of debts, leaving only 17 shillings for purchase of cloth, that will realize 0.85 of a piece.

This must re-exchange for the equivalent of its original cost, 1½ sacks of coffee, or Rs. 36$000; so that the price of a piece of cloth will have risen from Rs.12$000 to Rs.42$353!

Unless, therefore, every increase of foreign charges is accompanied by a positive increase of imports sufficient to compensate to the increased burden of foreign payments, either some foreign obligations must remain unpaid, or be liquidated by other means.

If however, in practice we find that the ratio of imports to exports has increased from 81.5 to 89.1 %, whilst that of other fixed payments has risen from 10 % to 17.8 %, thus raising the ratio of the total debit (passivo) from 91.5 % to 106. %

of the credit (activo) during the 35 years 1861—1894, the only conclusion possible is that this has been affected with the aid of foreign capital, instead of by the sacrifice of Exports.

This conclusion may appear to be in contradiction to a previous assertion that the "balance of trade" could not be permanently unfavourable, but is not so in the sense that the term is generally understood, which includes only imports and exports of merchandise in the equilibrium.

It cannot be denied that, though the "balance of trade" has been almost uniformly favourable, that of international payments has not been so; the question to be decided is whether such a state of things cannot be remedied, and the economical equilibrium permanently realized without the necessity of periodic appeals to foreign capital for assistance.

Had no foreign capital ever been available all liabilities *must* have been met with purely local resources, and though the burden of foreign indebtedness has been, and is, increasing at an alarming rate, it is certain that the Country can by a well directed effort easily place itself in a position to meet not only its actual engagements, but to provide against any that circumstances may oblige it to undertake in the future, if the fatal system of relying on loans as substitutes for the taxation necessary to meet ordinary expenditure were abandoned, once and for all.

From the preceding illustration it might be presumed that there exists no limit to the extravagance of governments, or to their ability to contract foreign debts, further than the value of the whole mass of imports; but far from this being the case a point is quickly reached when the value of imports would become so exaggerated as to put a stop to imports altogether, or lead to their manufacture or production in the country itself.

It cannot be too constantly borne in mind that the advantage of imports, as Stewart Mills has pointed out, depends *not on their actual, but on their comparative cost.*

If we suppose one cwt. of coffee, which costs 50 days' labour in Brazil, to exchange for 1 bale of cloth, which likewise costs 50 days' labour in Germany, but would cost 100 days' labour in Brazil, there would be a clear profit to Brazil equivalent to the cost of 50 days' labour in the exchange, leaving out of consideration freight and contingencies. Of this profit, however, only part would be realized by the producers, the remainder being intercepted by the Government in the shape of taxes, for payment of its foreign engagements.

If then we call Exports or coffee costing 50 days' labour = E
Imports or cloth " " " = I

whilst the Producer's profits are represented by............. P
then $E + P = I \therefore P = S - E = 50$ day's labour.

i.e. The producer's profit, when there are no fixed foreign burdens, would be equivalent to 50 days' labour, or 100 % of cost.

If then a foreign debt were contracted demanding annual payments equivalent to $^1/_{10}$ part of the value of Exports, as the profits on that amount would be sacrificed as well as the value of the exports themselves, *then* $^1/_{10}\ (I + P) = {}^1/_5\ I$, and the equation of profits would now he $E + P = I - {}_1/_{10}\ I \therefore P = 40$.

i.e. When foreign fixed payments absorbed on equivalent of $_1/_{10}$ the value of Exports the profits of producers would be reduced to 40 days' labour, or 20 per cent!

Every successive increase of foreign burdens will cause a proportional decrease of profits, and the extreme limit would be reached when foreign payments absorbed 25 % of the value of exports.

If, then, it were possible to establish the comparative cost of all exported and imported commodities, it would be likewise possible to determine mathematically the precise point at which increased taxation for liquidation of foreign liabilities, would cause importation to cease and home production to commence in each separate instance.

In the same manner the amount by which imports would have to be diminished, or exports increased, or both, to meet an increase of fixed foreign burdens could be determined.

In the suppositious case just cited the increase by 10 % of foreign fixed burdens would demand an increase of 20 % of exports, or a similar decrease of imports, or else a simultaneous and uniform increase of one and decrease of the other by 10 %.

If the increase of foreign burdens were equivalent to 20 % of the value of exports, the increase of exports required would be 40 %!

Every successive increase of fixed foreign burdens must, therefore, increase the ultimate demand for bills and tend to lower exchange, and reduce the profits of production and exports:

If, as has been asserted, the equilibrium of annual international payments has never been attained, and is impossible except by the aid of foreign capital, as soon as the proceeds of the loans were exhausted the chronic excess of demand over the supply of bills must recommence, and exchange fall again uninterruptedly, with no hope of even a temporary reaction, until a new loan were negotiated ; as each successive fall of exchange must add to the deficit, and still further exaggerate the excess of the demand to the supply of bills, if it were then impossible to re-establish

the equilibrium in the way asserted by means of fresh loans, exchange must drop continuously until either zero or suspension of payments were reached!

It is not denied that the accession of foreign capital, in any form, exercises a powerful and often determining influence on the immediate course of exchange, increasing as it must the supply of bills, but experience teaches that the gratuitous assertion that the equilibrium of exchange is absolutely dependent on the periodic recurrence of loans, and that it has not and cannot be realized without such adventitious resources, to be untrue.

During the eight years, to take an example, from 1868 to 1874, only one foreign loan for Rs. 26,667:500$ gold was negotiated, and the total value of foreign capital imported was Rs. 45.806:437 $, exchange rising from 17¼ to 26d.!

It can scarcely be pretended that this insignificant assistance from foreign capital, equivalent to less than 5 % of the nominal value of the currency and also of exports, was sufficient to raise exchange from 17d. to *par* in the short term of 8 years; but, if so, how then can it be explained that in 1875 a new loan, for nearly double the amount, only succeeded in maintaining exchange at par for that year, the rate falling again in 1876 to 25d., and in 1877 to 22d.?

The undeniable fact, which the study of the causes of the rise of exchange during this period, 1868-1875, discloses is that National resources, almost unassisted, were sufficient to raise the rate of exchange from the lowest point it had ever yet reached to above *par*, in seven years, and at the close of an exhausting war, simply by the excess of the value of exports over that of foreign payments; and points the moral that the only manner in which a similar stable equilibrium may be attained is by either increasing the value of exports in the same manner, or by reducing imports to some similar proportion to exports that they then represented, 78 %, or both. If then, the financial history of the country shows that frequent use has been made of foreign Capital to establish the equilibrium of international payments, it cannot be thereby concluded that this was either indispensable or advantageous, as, with or without it, the equilibrium most have been attained, because it is the consequence of self-adjusting nature of real or international exchange, when not arbitrarily interfered with, and which like all phenomena, obeys precise and unvarying laws of motion and equilibrium, that, as soon as its equilibrium is disturbed by either a rise or fall above true *par* value, the whole economical system is at once set in motion, at home and abroad, until, by a more or less rapid rearrangement of its elements, a fresh state of equilibrium

is evolved. The passage from one state of equilibrium to the other can only be comprehended by the action of a pair of forces, one tending everlastingly to destroy and the other to restore the balance. This state of equilibrium must, however, either exist or be in process of readjustment; and may be likened to a perpetual see-saw, always seeking but never attaining any but a temporary repose, and, like Sisyphus' stone, only reaching the top of the hill to immediately commence to slip back again.

The Influence of Foreign Loans on Exchange

The effect of considerable foreign loans on exchange will vary in accordance with the method employed and the manner in which the proceds of the loan are received.

If the proceeds of the loan are wholly drawn-for, in lieu of being imported as bullion, the specie would remain in the lending country and there might then be no disturbance of the currency and, consequently, no alteration of prices in that country. In the borrowing country the supply of bills would be largely supplemented, and real, or international, exchange go to *par*, if it had not done so previously.

In countries with a metallic currency exchange would not rise beyond the maximum gold point, when any proceeds of the loan that still remained would have to be shipped.

In the case of a depreciated inconvertible currency this need not necessarily be the case, as even after the equilibrium between the supply and demand for bills has raised international exchange to par, nominal exchange may continue to rise until it reaches the real local maximum specie point, equivalent to the legal *par* value of the currency, *plus* the expense of importing bullion.

The influence that the importation or exportation of bullion exercises on the value of the currency strictly speaking affects not international, but only nominal exchange, and, consequently can only be considered when that subject comes to be treated.

In consequence of the rise in exchange, provoked by a foreign loan, local prices (paper) of both imports and exports will fall, but not in the same degree; those of exports falling simultaneously, and in the same proportion as gold, whilst those of imports will fall less, and more slowly, just as they have been already shown to risedifferentially in consequence of an improvement of exchange. Consequently the supply of exports will suffer a greater reduction than will the demand for imports, and this inequality will persist until the difference created in the demand for imports becomes equivalent to the increased supply of bills resulting from the loan. When therefore the proceeds of the loan are exhausted the equilibrium of real exchange being again disturbed, by the excess which the demand for imports has acquired over the supply of exports, it must fall again until not only this excess is reduced to a level with the

original supply of bills, previous to the loan, but also until either this supply is supplemented by some positive increase of exports, equivalent at least to the increased cost of the service of the foreign debt created by the new loan, or until the demand for imports is still further reduced in a similar ratio, or both.

The increase of exports is a matter of time and labour, and, as has been shown, the tendency of imports is often to increase as exchange falls.

Unless, then, some means are adopted to secure the necessary reduction of imports to compensate the increased burden of foreign payments, that every fresh foreign loan must originate, at least until the desired increase of exports can be realized, international exchange must remain unfavourable. The only means to attain this indispensable decrease of imports is by the increase of duties on imported commodities; but, in order that such a purely fiscal measure should not exercise a protective influence that was never intended, it should be accompanied by an equivalent internal, or excise, tax on similar local production.

If, in place of drawing-for, the proceeds of the loan they were in shipped, the disturbance of the currency that would ensue would cause a rise in prices and shrinkage of imports in the lending country. The effects of the importation of a large amount of bullion would be, strictly speaking, confined to nominal exchange, but as soon as the bullion was thrown on the market, real exchange, if not previously so, would go to *par*, but not beyond, as any deficit that might have previously existed between the supply and demand for bills would then be made good by re-exportation of the bullion.

The nett result of a loan, thus applied, would, therefore, be to cause a greater fall in prices of exports and a less reduction in those of imports than when drawn-for, until bullion commenced to return to foreign countries, when the course of real exchange would be similar to that already described in the case of the proceeds of the loan being drawn-for.

The ultimate result of a foreign loan thus utilized would, therefore, be a tendency to lower exchange more than if drawn-for.

If the loan were neither drawn-for, nor its proceeds in-shipped but applied exclusively to the liquidation of over-due foreign liabilities, there would be no immediate alteration in either real on nominal exchange, and the only result would be a negative one, the avoidance of a probable further fall in both. Ultimately, however, the increased cost of foreign payments caused by the new loan must disturb the equilibrium of real exchange and

provoke a fall, unless compensated by an increase in the value of exports, or decrease of that of imports, or both.

A foreign loan productively employed in the direct increase of production, or the decrease of its cost by construction of useful public works, such as railways, might easily, after some lapse of time, produce sufficient advantages to compensate the increase of foreign burdens, and re-establish the equilibrium of real exchange independently of any increase of exports, or shrinkage of imports; and in this case, if the equilibrium between the annual international Debit and Credit could he in the meanwhile secured, gold would not leave the country. Otherwise the drain of gold back again from the borrowing to the lending country is an inevitable consequence of the mechanical method in which international Exchange is readjusted; and explains how in Brazil, R. Argentina, and other countries, in spite of the immense sums received in the shape of European loans, that in Brazil is certainly not less than £150,000,000, and in R. Argentina largely exceeds this amount, little gold remains in the Country.

The unproductive employment of foreign loans in the payment for example of administrative expenditure, even if it be all spent in the country itself, will add nothing to the productive capital of the country, the money will have been simply spent, without producing any equivalent, and is lost for ever as far as capital is concerned.

The immediate effects of a foreign loan must be identical whether productively or unproductively employed, but the ulterior results must be, in one case a possible *rise*, and in the other a certain fall in the tendency of exchange.

The only possible advantage that could accrue from the unproductive employment of a foreign loan lies in the eventuality of having, by means of the economical employment of cheap foreign capital, avoided the necessity of increasing the taxation of production, and thus allowed greater opportunity for the development of industry and accumulation of individual wealth.

Foreign Funded Debt:

PERIOD	AVERAGE ANNUAL VALUE OF THE FEDERAL FOREIGN DEBT	AVERAGE ANNUAL VALUE OF PROVINCIAL AND MUNICIPAL FOREIGN DEBT	ANNUAL AVERAGE VALUE OF THE TOTAL FOREIGN DEBT	COEFFICIENT PER CAPITA
	Rs.	Rs.	Rs.	Rs.
1st 1860-1864	76.124:818$		76.124:818$	9$227
2nd 1865-1869	127.243:012$		127.243:012$	14$223
3rd 1870-1875	141.822:366$		141.822:366$	14$018
4th 1876-1885	162.057:928$		162.057:928$	13$368
5th 1886-1889	220.827:427$	3.575.000$	224.402:427$	16$173
6th 1890-1892	259.928:286$	10.233:334$	270.161:653$	18$315
1893	261.872:162$	24.196:000$	286.008:162$	18$693
1894	281.877:302$	25.379:000$	307.256:302$	19$696
1861	68.101:652$	NIL	68.101:652$	8$407
1895	353.860:423$	25.379:000$	379.239:483$	23$702

The coefficient of total foreign indebtedness has (allowing for an annual increase of population of 2½ %, from 8.000:000 in 1860 to 15.600:000 in 1894) risen from Rs. 8$407 *gold*, in 1861, to Rs. 19$696 in 1894, or 134 %, including Provincial and Municipal foreign loans, a truly alarming rate of progression, if not compensated by the productive employment of the proceeds of the debt!

Annual Service of the Foreign Debt.

PERIOD	AVERAGE ANNUAL SERVICE OF THE FEDERAL FOREIGN DEBT	AVERAGE ANNUAL SERVICE OF THE PROVINCIAL AND MUNIC. FOREIGN DEBT	AVERAGE ANNUAL SERVICE OF THE TOTAL FOREIGN DEBT	COEFFICIENT PER CAPITA	RATIO TO VALUE OF EXPORTS
	Rs.	Rs.	Rs.	Rs.	
1st 1861-1864	11.032:079$		11.032:103$	1$377	7.8%
2nd 1865-1869	8.529:368$		8.529:368$	0$954	4.8%
3rd 1870-1875	10.038:854$		10.038:854$	0$991	4.8%
4th 1876-1885	12.925:844$		12.925:844$	1$066	6.6%
1886-1889	16.440:387$	204:350$	16.645:237$	1$199	7.2%
1890-1892 Including Conversion	64.482:667$	528:334$	65.011:001$	4$406	
1890-1892 Exclusive Conversion	13.598:859$		14.027:293$	0$937	5.1%
1893	13.336:033$	1170:527$	14.500:560$	0$947	4.5%
1861	5.122:157$	NIL	5.122:157$	0$597	3.2%

The total nominal value of all Federal foreign loans negotiated from the year 1824 to 1892 amounts to £71.891.300 (Rs.639,041:766$), of which however, only 86.6 per cent., equivalent to £62,313,050 or Rs. 558.898:500$ gold, have been actually received, the balance of £9,578,250 (Rs.85,143:164), or 13 per cent., having been absorbed by expenses, commissions and discounts.

The difference between the nominal value payable of a foreign loan and the real value received is usually regarded as an absolute equivalent loss to the borrower; but, in point of fact, such is rarely the case, and a great part of the loss is merely apparent. The terms of most of the foreign loans negotiated with Brazil stipulate that amortisation shall be effected by tender when the market quotations are below *par*, and by drawings when they are above.

Consequently the lower the market quotation, the greater will be the advantage to the borrower, who can thus repay his debt with a less expenditure!

From 1861 to 1894 foreign bonds to the nominal value of £35,639,441 were amortised with an expenditure of only £34,452,511. The real value, that is, the original nett value received for these bonds was £31,050,725, and, consequently, the loss of £4,588,711, which the amortisation at par must have entailed, was reduced to £3,401,782, or only 10.09 per cent. of the nominal value of the loan, in lieu of 13 per cent.

In 1890 National foreign credit suffered a severe check, and the market value of Brazilian bonds fell rapidly to 75 and 80 per cent. of their nominal value. In consequence from 1890 to 1894 bonds to the nominal value of £1,391,716 have been purchased for about £930,728. The real value, originally received, of these bonds was £1,223,505; so that, in lieu of the loss of £168,200, which must have accrued had these bonds been redeemed at *par*, a nett profit has been realized by Brazil of £292,777, whilst the total saving effected by the fall in prices amounts in 4 years to the considerable sum of Rs. 3,097:634 gold, which must continue to accumulate so long as the low quotations of Brazilian securities persist.

If, therefore, the loss of foreign credit is for many reasons to be regretted, and has its decided disadvantages, moral as well as material, it is not an unmitigated evil, but undoubtedly also confers tangible and positive benefits by facilitating the liquidation of foreign liabilities at a cheaper rate; thus materially reducing the burden of foreign payments, and thereby improving the prospects of international exchange.

The immediate effect of a foreign loan on the course of ex-

change must be purely transitory, and any improvement it may effect can only be rendered permanent by the simultaneous influence of other and more persistent causes.

Thus in 1865, when exchange had already commenced to fall, a considerable foreign loan for Rs.44,445:000$, not being accompanied by any other real cause which would sustain the rate of exchange attained by the influence of the loan, but, on the contrary, being simultaneous with a real cause for depreciation in the excessive foreign expenditure of the Paraguayan war, was unable to raise exchange at all, and only to maintain it at about the same rate, 24½d. until 1866, when it recommenced to fall again.

Recapitulating: we conclude that the immediate tendency of all foreign loans must be to raise the rate of international exchange and the value of the currency, but that unless some means of increasing production and exports, or of diminishing the value of imports has been secured, their ultimate effect must be to depreciate the value of these exchanges to a lower point than that from which they had risen, and that this depreciation will be greater when the loan is unproductively employed.

Internal Loans and their effect on Exchange

The effects of an internal loan on international exchange would be generally less direct but more pernicious than those of foreign loans. A home loan can rarely be advantageous when a foreign loan can be obtained on equal terms, except for considerations of a moral nature.

Internal loans must be derived from either Capital itself, thus reducing its amount, or else from accumulations that would otherwise have found their way into the money market and increased the capital available for production.

The direct or indirect reduction of productive capital must prejudice production; so that, in addition to a usually higher rate of interest, an internal loan will entail either a real decrease in the value of production and exports, or a contraction in the usual rate of the increase.

If the internal loan were productively employed there would be no actual decrease of Capital, but merely a transfer; though it is improbable that any government could employ the proceeds so advantageously as Industry itself; and so, even in this case, there would be a probable loss and tendency to weaken real exchange.

If the loan were unproductively applied, there would be a real and positive decrease of capital, as the proceeds, even if entirely expended in the country itself, would not compensate the loss of capital, but, at best, merely replace in some instances a part of the circulating capital that administrative debts had previously immobilized. The sums spent in payment of salaries and wages would be simply consumed in the purchase of commodities and payment of debts, and be lost for ever as capital; only that part, perhaps, which was saved finding its way ultimately into the money market, and thus compensating in an insignificant proportion the reduction of Capital caused by the loan itself.

An internal loan, if payable in currency, will not alter the relations between the supply and demand for bills, and therefore will not directly affect international exchange. Ultimately, however, the reduction of Capital caused by the loan must affect production and exports, and exercise a weakening effect on international exchange.

National Loans payable in gold

The first national internal loan payable in gold was emitted in 1869 for Rs.30,000:000$. The value of the internal debt payable in gold, including the loans of 1869 and 1879, and the part of that of 1889 actually in circulation or belonging to the banks, as well as the '*Apolices*' of 4 per cent., had risen in 1894 to Rs.272.569:500$, an average increase of 32.2 per cent. per annum.

The service of the debt demanded in 1894 the sum of Rs.9,775:327$ gold, equivalent to Rs.26,261:252$ currency at the current rate of exchange for that year, exclusive of the service of the bonds of 1889 deposited in the Treasury in guarantee of the emission of the Bank of the Republic.

In addition to the general effect on exchange of all internal loans already described, the payment of the service in gold will affect international exchange directly by the increased demand for bills that the importation of gold for the service of the loan must create. Part of the consequent increase in the demand for bills and of the tendency of real exchange to fall will be recovered when the bullion is thrown on the market afresh, though some loss is inevitable on account of the expense of shipment of bullion, and this must always exercise a weakening effect on the tendency of exchange.

Average Annual Value of the Internal Debt Payable in Gold

PERIOD	ANNUAL AVERAGE VALUE OF INTERNAL GOLD BONDS AND 4 % *Apolices* in CIRCULATION	COEFFICIENT PER CAPITA	ANNUAL AVERAGE COST OF THE SERVICE OF THE DEBT	COEFFICIENT PER CAPITA ANNUAL AVERAGE	POPULATION ANNUAL AVERAGE
	Rs. gold	Rs.	Rs. gold	Rs.	
1861—1864	Nil				
1865—1869	6.667:667$	0$671	750:000$	0$016	8.250,000
1870—1875	28.862:133$	2$850	12.214:198$	0$201	8.940,000
1876—1885	58.186:892$	4$856	42.128:769$	0$355	10.117,000
1886—1889	59.000:275$	4$252	27.184:909$	0$589	12.135,000
1890—1892	207.012:302$	14$024	75.739:445$	1$703	13.875,000
1893	234.910:000$	15$353	11.948:577$	0$780	14.750,000
1894	232.782:000$	14$921	9.775:327$	0$627	15.000,000
1894	272.569:500$	inclusive of loan 1889.			

It is impossible to arrive at a correct estimate of the real value received on account of internal loans payable in gold without deducting all the expenditure on account of commissions, brokerage and discounts, which are unobtainable.

If, however, the general results may be judged from those of the loan of 1889, which was issued under more favourable conditions and circumstances than the others, this method of raising money would appear to be much more costly, as well as more inconvenient than foreign loans. Dr. Ruy Barbosa has shown in his report for 1891 that the expenditure connected with the loan of 1889 amounted to 17.3 per cent. of its nominal value, compared with a loss of only 10.8 per cent. realized on the foreign loans negotiated during the same period.

Annual Average Value of the Debt payable in Currency

PERIOD	ANNUAL AVERAGE REAL VALUE OF APOLICES AT CURRENT EXCHANGE	COEFFICIENT PER CAPITA	AVERAGE ANNUAL ACTUAL VALUE IN CURRENCY	COEFFICIENT PER CAPITA
	Rs. gold	Rs. gold	Rs. currency	Rs. currency
1860—1864	68.174:079$	8$348	70,536:130$	8$549
1865—1869	81.655:668$	9$133	104.754:840$	11$717
1870—1875	223.553:532$	22$096	263.976:685$	24$115
1876—1885	258.454:965$	21$315	316.257:520$	26$082
1886—1889	328.025:489$	23$657	370.745:150$	26$720
1890—1892	199.477.672$	13$523	304.234:000$	20$626
1893	117.569:847$	7$684	266.639:646$	17$427
1894	97.710:149$	16$806	262.175:400$	16$896
1861	64.764:200$	7$991	64.734:200$	7$991
1861—1894			367.238:500$	

The internal debt payable in currency has increased 305 per cent. since 1861. Reduced to its corresponding currency coefficients per capita it shows an increase of 110.3 per cent., whilst population has increased for the same period, 1861-1894, by 92.5 per cent. If, however, these coefficients be reduced to their real or gold value at the current rate of exchange for each year, the results will show a positive decrease in the real value of the internal federal indebtedness payable in currency equivalent to 19.5 per cent!

Undoubtedly the ease with which this debt has been more than trebled in 29 years, without any serious attempt at amor-

tisation, is one of the most unsatisfactory features of National finance, as the elasticity of the debt itself is its salvation, adapting, as it does, the burden of debt to the resources of the debtor.

The immense advantages to the country of contracting loans on a currency, in place of a gold basis is indisputable; and it is much to be regretted that such a wholesome practice was ever abandoned in favour of National loans payable in gold, the rigidity of the conditions of which render them unfitted to the oscillating nature of all values, that the instability of the currency entails.

The injustice and injury inflicted on creditors in general, and on 'apolice' holders in particular, by the depreciation of the currency has been greatly exaggerated, and is in reality much less than it appears, because the depreciation in general value, or purchasing-power, is much less than the mere depreciation of real, or metallic value.

The rise in prices consequent on a fall of exchange is not uniform, and, with the exception of exportable products, always much less than the rise in the price of bullion itself.

At. 27d. *par*, the real value of an 'apolice' of Rs.1:000 $ will correspond to its nominal value. If, then, exchange fell to 13½d., and all prices rose uniformly, this 'apolice' would then only suffice to purchase 500$ gold worth of goods, where it formerly purchased Rs. 1:000$, and the depreciation of the value of the 'apolice' would be equivalent to 50 %. All prices, however, do *not* rise uniformly, as has been already stated and will presently be proved. If we suppose that commodities and expenditure have risen on an average 50, in lieu of 100 °/₀, then 1,000$ would purchase 750$ gold worth of goods, in place of only 500$, and the depreciation of its general value, or purchasing-power, would be only 25 %, although the depreciation of its real or gold value would still be 50 %.

It must also be borne in mind that even the original purchasers of 'apolices,' if any exist, acquired the greater part of their 'apolices' at a considerable discount, when exchange was itself below *par*; and that, consequently, their repayment, or payment of their interest only, at any rate in excess of that at which they were originally emitted must entail an equally positive loss to one side as an entirely unearned and undeserved increment of profit to the other.

During the Paraguayan war alone Rs.173.935:548$ were issued in 'apolices,' which only realized 81% of their nominal value; the loss to the State, if these 'apolices' were repaid at *par*, would be Rs.26.249:976$.

Average annual cost of the service of the Internal Debt payable in currency

	Real, or gold, cost of the service of apolices at current rate of exchange	Coefficient per capita	Actual or nominal cost of the service	Coefficient per capita
	gold. Rs.	gold Rs.	paper Rs. m/c.	paper. Rs.
1861—1867	74.098:820$	0$496	4.246:553$	0$524
1865—1869	4.875:480$	0$545	6.264:112$	0$706
1870—1875	13.585:574$	1$342	14.616:521$	1$444
1876—1885	15.928:013$	1$313	18.959:197$	1$547
1886—1889	17.196:153$	1$239	19.333:559$	1$397
1890—1892	10.165:986$	0$689	15.210:489$	1$031
1893	5.688:916$	0$375	13.330:784$	0$871
1894	4.855:192$	0$311	13.310:570$	0$840
1861	3.863:896$	0$477	3.765:753$	0$464

The advantages of the internal debt on a currency basis, compared a similar debt contracted on a gold basis, is still more evident if we compare the relative cost of the annual service in each case. The actual cost of the service of the debt in 1894 was Rs. 13.310:570$ currency, which, at the current rate of exchange, was equivalent to only Rs 4.855:192 $ gold. Had the debt been contracted on a gold basis the annual service would have cost Rs. 35.170:242 $ currency, or nearly three times as much.

During the 5th period, 1890–1892, the amount of this debt was greatly reduced by the conversion of Rs.124.642:000 $ into 4 per cent. gold bonds; this accounts for the fall of the coefficient of service from 1$397, in the previous period, to 1$031 currency per capita.

AVERAGE ANNUAL TOTAL FEDERAL INDEBTEDNESS—INTERNAL AND FOREIGN

(EXCLUSIVE OF FLOATING, INSCRIBED AND UNINSCRIBED DEBTS)

	PERIOD	ANNUAL AVERAGE FUNDED AND INTEREST PAYING DEBT				ANNUAL AVERAGE LIABILITY OF THE STATE INCLUSIVE OF FUNDED DEBTS AND TREASURY NOTES ONLY				ANNUAL AVERAGE LIABILITY OF THE STATE INCLUSIVE OF FUNDED DEBT AND NOTES OF ALL KINDS.			
		MAXIMUM VALUE EXCHANGE 27d.	COEF. P/CAP.	MINIMUM VALUE EXCHANGE 10d.	COEF. P/CAP.	MAXIMUM VALUE EXCHANGE 27d.	COEF. P/CAP.	MINIMUM VALUE EXCHANGE 10d.	COEF. P/CAP.	MAXIMUM VALUE EXCHANGE 27d.	COEF. P/CAP.	MINIMUM VALUE EXCHANGE 10d.	COEF. P/CAP.
		Rs. gold	Rs. gold	Rs. gold	Rs. gold	Rs. gold	Rs. gold	Rs. gold	Rs. gold	Rs. gold	Rs. gold	Rs. gold	Rs. gold
1	1860—1864	146.660:968	17$717	144.298:892	17$491	181.978.874	22$058	177.684:967	21$537	238.991:208	28$333	228.597:929	27$709
2	1865—1869	237.997:852	26$627	214.898:680	24$037	299.704:180	33$523	263.523:153	29$480	365.714:722	40$903	313.929:772	35$114
3	1870—1875	414.641:124	40$984	394.218:036	38$965	564.625:972	55$809	528.904.436	54$277	601.865:701	59$487	566.791:853	46$032
4	1876—1885	536.503:221	44$296	478.699.786	39$480	716.211:505	59$085	626.842:413	51$697	741.836:005	61$182	651.273:603	53$358
5	1886—1889	650.572:951	46$887	608.079:221	43$824	838.890:504	60$461	777.194:689	56$005	855.563:233	61$661	788.158:680	56$602
6	1890—1892	771.174 584	52$283	664.404:190	45$179	968.389:008	65$653	788.254:847	53$375	1239.969:179	84$065	943.869:613	64$125
	1893	763.361:862	49$892	614.292:009	40$149	1044.106:612	68$659	741.811:343	48$609	1410.279:612	92$175	889.833:686	58$149
	1894	776.834:702	49$797	612.369:460	39$254	1074.746:662	68$906	723.545:211	46$381	1480.662:602	94$920	874.678:341	56$146
	1895	963.573:036	60$229	731.894:935	45$700	1300.931:659	81$933	856.717:739	56$669	1641.646:054	102$602	982.782:654	61$423
	1861	134.547.247	16$610	131.191:604	16$196	169.787:398	20$961	166.431:755	20$547	221.604:335	27$358		

The usual method of estimating the indebtedness of countries where the debt consists of liabilities payable both in gold and depreciated currency is to value all at their nominal or *par* value, and to consider this as representing an equivalent debt payable in gold. This does not, however, give a true idea of the true value of the debt, but only of the maximum value it would assume if exchange stood at *par* (27d.), or if it were possible for it to go to *par* without any reduction in the volume of the currency. On the other hand if the part of the debt payable in currency is reduced to gold at the current rate of exchange, this added to the amount of the debt payable in gold will give the actual gold value of the total debt for the moment, but will only represent its true value so long as exchange remain unaltered. Any reduction of the volume of the currency must raise the value not only of the remainder, but also of all securities payable in currency. The real value of the total National debt, that is, the gold cost at which it could be paid off, the true test of value, will be neither the maximum nor the actual, but the *mean* value.

The total Federal Liability including the Funded, Floating and Security debt was according to the estimate presented to Congress in 1895, as follows:

FOREIGN FUNDED DEBT		
Loan of 1883—4½ per cent.........	£ 3.765:400	Rs.
" " 1884—4½ " "	5.769:100	
" " 1889—4 " "	19.122:300	
" " 1893—5 " "	3.710:000	
" " 1895—5 " "	7.442:000	
Total foreign funded debt at 27d.	£ 39.808:800	353.860:423$
INTERNAL FUNDED DEBT *Payable in gold*		
Apolices 4 per cent gold.........	R 124.655:000	
National loan 1868—6½ per cent.	13.541:500	
" " 1879—4½ " "	24.679:000	
" " 1889—4 " "	109.694:000	272.569:500$
		626.429:923$

	Rs.	Rs.
		626,429.923$
INTERNAL FUNDED DEBT		
Payable in currency		
Apolices 4 per cent....	119.600	
" 5 " "	262.118:900	
National loan, 1895—5 %	105.000:000	367.238:500$
Total funded debt, gold and currency, home and foreign......		993.668:423$
NON-FUNDED DEBT.		
Uninscribed debt	22:176	
Debt inscribed in "grande libro"	135:994	
" " in auxiliary books	148:766	
	306:936	
FLOATING DEBT.		
Orphans' funds R. 16.271:994		
Deposits "Caixa Economica" 36.768:928		
" "Monte Pio" 1.223:163		
Unclaimed inheritances 3.919:543		
Public deposits 5.969:357		
Sundry 180.478:692	244.628:677	
SECURITY DEBT.		
Cia. Commercial, Rio 5.000:000		
State of Sergipe 1.367:500		
„ Piauhy 526:100	6.893:500	
Total unfunded debt..............	251.829:113	251.829:113$
Total funded and unfunded debt........		1,245.497:536$
Liability for treasury notes.......................		337.358:652$
Total liability including treasury notes.........		1,582.856:188$
Liability for notes of the Banco República....		340.714:370$
		1,923.570:558$
Deduct bonds of loan 1889, deposited in guarantee of emission............................		91.344:600$
TOTAL LIABILITY OF THE NATION INCLUDING THAT FOR ALL NOTES, NOMINAL VALUE		Rs. 1,832.225:958$

Of the whole debt Rs. 540.085:321$ only represent a real value payable in gold, the balance Rs. 1.292.140:637$ being the nominal value of the debt payable in currency, which reduced to its gold equivalent at 10d. the current rate of exchange, gives the following result: —

CLASS OF DEBT	MAXIMUM REAL VALUE CURRENCY LIABILITY AT 27d. (par)		MIN. REAL VALUE CURR. LIABILITY AT CURRENT EXCHANGE OF 10d.		MEAN REAL VALUE		NOMINAL VALUE, GOLD LIABILITY REDUCED TO PAPER AT 10d. EXCHANGE	
	GOLD Rs.	COEFF Rs.	GOLD Rs.	COEFF Rs.	GOLD Rs.	COEFF Rs.	CURRENCY Rs.	COEFF Rs.
Funded.................	993.668:423$	62$104	762.308:168$	47$644	880.483:295$	54$874	1691.360:792$	105$710
Funded and Floating.	1245.492:536$	77$843	858.634:940$	53$664	1052.063:238$	65$750	2318.928:405$	144$933
Liability including Treasury Notes	1582.856:188$	98$928	883.457:642$	55$216	1233.156:915$	77$072	2656.287:057$	166$018
Liability including all Notes	1832.225:958$	114$514	1018.177:357$	63$636	1425.201:657$	89$075	2750.371:003$	171$898

Analyzing the total liability, we have here four distinct valuations:—

1st. The maximum real, or gold, valuation at 27d Rs. 1,832.225:958$
2nd. The minimum real valuation at the current rate of exchange 10d................................. „ 1,018.177:357$
3rd. The Mean of these two, which is the true liability... „ 1,425.201:657$
4th. The valuation in currency reducing all gold debts to paper at the current rate of exchange „ 2,750.371:003$

The first would represent the real or gold liability of the Nation only if exchange stood at *par*, or if it rose to *par* without any reduction in the quantity of the currency, which is impossible, at any rate for many years.

The second represents the real value of the debt at 10d., but would do so no longer if exchange rose or fell at all.

The third or mean is the true liability equivalent to Rs.89$075 gold per head for all debts and notes, the true cost at which the whole could be paid off.

The fourth represents the equivalent in paper money of the whole debt, reducing the gold debt to its equivalent in paper at 10d. the current rate of exchange, but is useless except to convey an exaggerated and absolutely false idea of the country's indebtedness; a proceeding, which unpatriotic as it may be, appears to have been indulged in by some Journals desirous of discrediting the present regimen at any cost.

Comparison of the National indebtedness with that of other countries

	MAXIMUM AT 27d.	MINIMUM AT 10d.	MEAN
	Rs. gold	Rs. gold	Rs. gold
Brazil: Federal liability only per Capita	62$104	47$644	54$874
Funded debt, home and foreign " "	77$843	53$664	53$007
Funded, floating and security debt.................................. " "	98$928	55$216	65$750
Funded, and floating debt and Treasury notes................ " "	97$047	63$636	77$072
Total debt including all notes. " "	104$514	64$649	89$075

From the "Journal Statistique" for 1888, we obtain the following:

France, per capita......	Fcs	987.05	equivalent	to	gold	Rs.	348$428
Great Britain and Colonies....	"	500.00	"	"	"	"	176$500
Italy...........	"	375.00	"	"	"	"	132$375
Austria-Hungary.......	"	274.00	"	"	"	"	97$075
Germany..................	"	213.90	"	"	"	"	75$189
Russia...........	"	212.50	"	"	"	"	75$015
United States............	"	90.00	"	"	"	"	31$770

From other sources we obtain the following:

Australian Colonies...	£	46.3/.	equivalent	to	gold	Rs.	411$560
Republica Argentina.	"	45	"	"	"	"	400$000
Republica del Uruguay	"	30	"	"	"	"	266$670
Republica de Chile....	"		"	"	"	"	75$550

Comparing the interest paying debt of Brazil, which includes the home and foreign funded and floating debts, with that of other countries, we find that taking its mean value it is considerably less than that of any European State, being Rs. 65$750 per head, compared with Rs. 75$112 for Russia, the least indebted of European great powers. If the liability for treasury notes be included the coefficient will rise to 77$072, and is then greater than either Germany or Russia; whilst if the liability for all emissions is counted, the total indebtedness is 89$075, or more than Germany and Russia, and only less than France, G. Britain, Italy and Austria; but in this case the liability of these countries for their depreciated emissions of silver and notes should be also included.

Compared with the U. States the results are less favourable, the liability, if limited to the funded and floating debt, being more than double that of the United States.

Turning to S. America we find that the Brazilian debt, exclusive of the liability for paper money, is 12.9% less than that of Chile, and if all liability for notes is included is 16.3 per cent more; whilst it is only 22.2 per cent. of that of Argentina, and 33.3 per cent. of Uruguay!

Comparisons with the two last bankrupt states can, however, serve no purpose except to point a moral to what condition reckless borrowing and extravagant expenditure can reduce a prosperous country.

In spite of the similarity between the burden of debt in Chile and Brazil one enjoys splendid foreign credit, whilst the other can scarcely obtain money on any terms.

It is, therefore, clear that the credit of a nation does not depend merely on the amount of its indebtedness, and that if the

relative value of the funded debt per head were the sole criterion, the credit of Brazil should be second only to that of the United States itself! This becomes more striking if the credit of Brazil, with its modest debt of 89$078, be compared with that of Australia, with the greatest debt in the world, 411$560 per head!

Compared with Australia, a country whose economical and social conditions have more analogy to those of Brazil than European countries, and where borrowing has been carried to a far greater extent, the advantage appears at first glance to be all on the side of Brazil. The fact, however, that neither the prosperity nor solvency of these colonies has been affected by their enormous debt, the greatest of any considerable community, not excepting even the prodigal Argentine Republic, is proof evident that the consideration of mere figures, or the bare comparison of coefficients of indebtedness, is of little value in determining the relative credit or solvency of different states, unless both the manner and method, in which the value, that the debt represents has been utilized, is also taken into account.

In Australia almost the whole of the value of the debt has been productively employed in public works that yield a positive return nearly equivalent to the interest due. In railways alone over 64 per cent. of the whole debt, or £102,388,363, has been employed, which, whilst lending the most important services to production and development, yields an annual average profit of 2.8 per cent., the rate of interest on the debt being 3 to 3½ per cent. Had these immense sums been wasted on iron-clads and armaments, palaces and follies of every kind, as in the Argentine, the state of Australia to-day would be worse than that of the Plate! As it is, the productive expenditure of the loans enables a small community of less than 4,000,000 souls to support with equanimity and increasing prosperity the burden of a debt that, misapplied, must have proved crushing to many older nationalities!

The relative solvency of different States must depend more on the application given to the values the debt represents than on its mere amount; on whether it has been usefully and productively employed, or no; or, in a word, whether Capital has been perpetuated and multiplied, or wasted and destroyed.

What then has Brazil to show for its debt of 1,582,856:000$? that is the question to be answered before considering its credit in the world's markets. The railway property of the State consists of 2.658 kilometres, valued at Rs.241,643:143$, or only 15 per cent. of the funded debt, compared with 64 per

cent. in Australia; for the rest, what is there to show beyond a few unimportant public works, a successful foreign war, a depreciated currency, and bankrupt treasury?

A gloomy picture truly! Happy the country which like Australia has no history?

If we deduct from the total debt the value of the national railways and the cost of the Paraguayan war, there still remains a large balance to be accounted for, which has been expended mainly in liquidating perennial deficits, and balancing revenue with expenditure by recourse to loans and other still more irregular substitutes for ordinary revenue, in place of either reducing expenditure, or resolutely increasing taxation until local resources sufficed to meet ordinary liabilities.

It is to this fatal system that can be traced both the necessity for periodic borrowing, and the depreciation of the national currency, and not to the deficiency of resources to meet all engagements, excepting perhaps the extraordinary expenditure of the Paraguayan war and for the construction of railways.

If exchange rose to *par* the maximum, and not the mean, coefficient would then represent the true liability of the State, which would be then equivalent to 98$928 gold per capita including the emission of treasury notes only, and to Rs. 114$514 gold per head including all notes. The coefficient of indebtedness, or liability, would then he very greatly in excess of that of any European country except France, Great Britain, and Italy, and even come dangerously near to the last. Fortunately this is practically impossible without a large reduction in the volume of the currency.

The real value of the National Debt varies with the value of the currency, increasing as exchange rises, and *vice-versa;* consequently, taking solely into consideration its influence on value and liability, a low rate of exchange must favour debtors, the chief of which is the State itself, and prejudice creditors, and is, consequently, advantageous to the country at large.

The preceding estimate of actual indebtedness is based on the report presented to Congress by the Commission of Estimates as far as the floating and security debt are concerned, as also as regards the inscribed and uninscribed debts.

As regards the funded debt the estimate of the Commission, appears incomplete, as the internal loan of 1895 figures for Rs. 100,000:000$ in lieu of 105,000:000$, its nominal value; and the sum of £3.710,000, the liability for the Oeste de Minas loan, which Dr. R. Alves in his report confesses should be included in the estimates of the foreign debt, has been omitted altogether.

As the value of the "Sundry" item of the floating debt has not been discriminated, whether in gold or currency, the minimum or currency value has been adopted.

This valuation, however, does not appear to be complete without a statement of the foreign liability for contracts already entered into, which are understood to be very considerable, and to exceed 200,000:000$ gold; if this be added to the estimated liability it will considerably modify the results, and raise the coefficient of indebtedness by Rs.12.$500 per capita, when the maximum would be Rs. 117$000, and the mean Rs. 101$575 gold per capita, approaching still nearer to that of Italy.

SERVICE OF THE DEBT—Average Annual cost of the Service of the total Federal Funded Debt

PERIOD	Average Annual service of the foreign and national Gold Debt		Annual Average Service of the Internal debt payable in currency; "Apolices."				Average Annual Service of the Total Debt			
	GOLD DEBT 27d.	COEFF P. CAPITA	MAXIMUM EXCHANGE AT. 27d.	COEFF P. CAPITA	MINIMUM AT. 10d. EXCHANGE	COEFF P. CAPITA	MAXIMUM EXCHANGE AT. 27d.	COEFF P. CAPITA	MINIMUM EXCHANGE AT. 10d. EXCHANGE	COEFF P. CAPITA
	Rs. gold	Rs. gold	Rs. currency	Rs. currency	Rs. gold	Rs. gold	Rs. gold	Rs. gold	Rs. gold	Rs. gold
1861—1864	11.032.004$	1$337	4.246.552$	0$524	4.098.820$	0$496	15.278.631$	1$861	15.130.925$	1$833
1865—1869	8.679.367$	0$970	6.264.112$	0$706	4.875.480$	0$545	14.943.479$	1$676	13.554.947$	1$515
1870—1875	12.069.550$	1$192	14.616.521$	1$444	13.585.574$	1$342	26.686.071$	2$636	25.655.827$	2$542
1876—1885	17.238.721$	1$421	18.959.197$	1$547	15.928.013$	1$213	36.197.918$	2$968	33.166,734$	2$634
1886—1889	23.236,605$	1$674	19.333.595$	1$399	17.196.153$	1$239	43.570.506$	3$073	40.432.750$	2$913
Including conversion 1890—1892	83.609.124$	6$075	15:210.489$	1$031	10.165.986$	0$689	104.819.370$	7$106	99.775.029$	6$764
Exclusive conversion 1890—1892	28.723.341$	1$945					43,933.830$	2$976	38.889.327$	2$634
1893	25.284.610$	1$652	13.330.789$	0$871	5.688.916$	0$375	38.615.394$	2$523	30.908.526$	2$021
1894	24.008.535$	1$539	13.107.514$	0$840	4.855.192$	0$311	37.319,009$	2$379	28.863.631$	1$850
1861	5.132.157$	0$597	3.765.753$	0$464	3.863.896$	0$477	8.887.910$	1$061	8.986.053$	1$074
Increase 1861-94	+ 368.7 %	157.8 °/o	+ 253.4 °/o	+ 68.3 °/o	+ 69.6 %	− 32.9 °/o	+ 319 °/o	+ 117 %	+ 261 %	+ 75.3 %

Whilst the funded debt, internal and foreign, has increased 429 per cent. from 1861 to 1894, the real value of the annual service for interest and amortisation has risen only 261 per cent. This discrepancy is due chiefly to the reduction effected in the real, or gold value, by the fall of exchange. Had this remained at *par* the increase in the cost of the service of the debt would have been 319 per cent.

The coefficient of interest and amortisation has, owing to increase of population and the reduction of the rates of interest, risen only 75.3 per cent., from Rs. 1$074 gold per head, in 1861, to 1$850 in 1894.

In addition to the cost of the interest and amortisation of the funded debt the interest guaranteed by the State on industrial undertakings must be included in the estimate of the annual charges.

The guaranteed interest actually paid amounted to about Rs. 9.350:000$ for the year 1893, or Rs. 0$611 per capita.

Total Annual Charges for the service of the Federal debt and Guarantees, 1895.

Foreign debt		Rs. gold
Service of 1883 loan 4½ per cent.	£ 169.443	
" " 1888 " 4½ " "	259.609	
" " 1889 " 4 " "	764.892	
" " O. MINAS 5 " "	185.500	
" " 1895 5 " "	372.100	
at 27d	1,751.544	15.569.475$
Internal gold loans		
Apolices 4 per cent. gold	Rs. 4.986:200$	
Internal loan 1868—6½ per cent.	880:197$	
" " 1879—4½ " "	1.110:555$	
" " 1889—4 " "	2.793:480$	9.770:432$
Security debt. gold		
Guarantee Assoc. Commercial 5%	250.000$	250:000$
		25.589:907$
Internal debt payable in currency		
Apolices 4 per cent.	4:784$	
" 5 " "	13.105:945$	
Loan 1895—5 per cent.	5.250:000$	
	R. 18.360:792$	
Interest on floating debt	12.341:455$	30.702:184$
Guarantees to Railways in 1893		9.350:000$
TOTAL ANNUAL CHARGES		Rs. 65.642:091$

The maximum coefficient per capita, with exchange at par (27d.), is, therefore, Rs. 4$102 gold, and the actual coefficient, calculating the value of the service paid in currency at 10 pence is only 2$893 gold per head.

Of the total annual charges Rs. 34.939:907$, or 53.3 per cent., are payable in gold, and Rs. 30.702:184$ or 46.7 per cent. in currency.

The total Federal charges for interest and guarantees, compared with charges for the public debts of other countries. Exchange 10 pence per 1$000.

	MAXIMUM AT 27d	MINIMUM AT 10d	MEAN
Brazil : Federal charges only 1895	Rs gold	Rs. gold	Rs. gold
Service of the funded debt only	1$758	1$035	1$396
Service of the funded and non-funded debts and guarantees	4$102	2$893	3$498

According to the "Journal Statistique" for 1888 the coefficients of interest for the following countries are as follows:

France.....................per capita...	Francs 33.75 gold	Rs. 11$913
Italy..	17.50	9$177
England	16.25	5$736
Austria-Hungary.........................	13.75	4$853
Russia......................................	10.00	3$530
Brazil...........	—	2$893
Germany....................................	7.50	2$647
United States............................	4.00	1$412

The minimum or actual charge for the service of the funded debt alone, in 1895, was 1$035, or less than that of any other country not excepting the U. States. If, however, the charge for interest on the floating debt and Federal guarantees be added the actual coefficient is raised to 2$893, which is more than double that of the U. States, and little more than that of Germany.

If exchange, in lieu of being at 10d., had stood at *par* the charge would have been represented by the maximum coefficient of 4$102, and would then be more than that of Russia, and only little less than Austria. It will be noticed that the order of precedence is now changed, whereas the coefficient of indebtedness places Brazil only below France, England, Italy and Austria, its coefficient of interest has fallen to a place between Russia and Germany.

This change of position is due to the fact that a large part of the Brazilian debt, Rs.340.714: 370$ of treasury notes, pays no interest whatever. If interest were paid on this part of the debt at the rate of 4½ per cent. per annum, the maximum coefficient would then be Rs.5$060$, and the minimum Rs.3$247.

The interest on this part of the debt at 4½ per cent. would amount to 15.332: 146$, per annum and the fact that the State has economized this considerable addition to its annual charges may, by some, be regarded as an advantage and as sufficient apology for continuation of the policy of government issues of forced currency. If the burden of the forced loan, that every new emission of paper money really constitutes, fell uniformly on all alike there would be less objection to this manner of raising money; but, as will be presently demonstrated, the burden of such contributions falls almost exclusively on certain limited classes, which are in reality defrauded of the annual amount that the State economizes by not paying interest.

Interest has been estimated on the floating debt at 5 per cent. per annum. It is improbable that this rate is exceeded, if interest is allowed at all, or that this debt could be funded, as it ultimately must be, at a lower rate.

A rise in the rate of exchange from 10d. to *par* (allowing such a thing to be possible without any previous reduction in the quantity of the currency) would raise the real value of the annual charges from the minimum of Rs.46.299:716$ actually paid in 1895, to Rs.65.642 :091$ gold, the maximum, or 41.7 per cent.; and although a simultaneous reduction in the nominal value of the charges from Rs.125.990 :829$ to Rs.65.642 :071$ would have taken place, equivalent to 92 per cent., it must not be supposed that the increase of real cost is compensated by the fall in the nominal, or that the former can constitute anything but a real accession to the burden of annual charges and of taxation. For payment of these charges taxation must be levied sufficient to produce the equivalent of the increased value; and supposing that taxes were paid in kind, in lieu of paper-money, it is clear that the same amount of produce that originally satisfied the service of the debt when it required only Rs.46.299 : 716$ gold will not suffice for payment of Rs. 65.642:091$, and, consequently, we may conclude *that every improvement in the rate of exchange is really equivalent to a positive increase in the annual charges for the debt, and in the real value of the taxation necessary to meet them.*

The rise in the rate of exchange, as has been explained, will not affect all values uniformly and the prices of only bullion and exports will fall uniformly, and inversely as the value of the

currency, other prices, including imports and all local expenditure, will fall less, and less quickly. Consequently, the real value of the charges for the debt, and, therefore, of the burden of taxation necessary to meet it, will not increase, as was just assumed, in the same proportion as exchange has fallen, but in a less ratio, which will be that of the average fall of all prices.

If, for example, the value employed in exports is represented by 6, and that in all other products and expenditure by 15; when exchange rose 100 per cent. the value of exports would be depreciated 50 per cent. to 3; supposing that other prices only fell to 12 instead of 7½, then the general depreciation of values would be only 23.8 per cent., in lieu of 50 per cent., as it would have been if prices had all fallen uniformly, and the increase in the real value of charges and taxation would be 40 per cent. in lieu of 100.

The coefficient of total foreign indebtedness was Rs. 9$227 for the first period, 1861-64, and rose to Rs. 18$315 gold per head in the 6th period, 1890 1892. Since that date it has increased to Rs 19$696 gold in 1894.

The annual service of the foreign debt cost Rs. 1$377 gold per head in the first period, and has actually fallen to Rs. 0$937 gold in the sixth period! The increase of foreign indebtedness per head from 1861-64 to 1890-92, was, equivalent to 98.4 per cent., and to 1894 to 113.4 per cent. The cost of the service of the debt in the period 1890-92 had, however, absolutety diminished in spite of this considerable increase of debt, by 46.9 per cent., owing partly to the reduction of interest effected by the conversion loan of 1889, but chiefly to the economy that low foreign quotations of Brazilian bonds have effected in the cost of their annual amortisation since 1890; one positive advantage, at least, attained from the loss of foreign Credit!

The cost of the service of the foreign debt was highest in 1860-64, Rs. 1$377 gold per head, owing to extraordinary amortisations, and fell to 0$954 in 1865-1869, rising again to 1$199 in 1886-1889. The cost of the annual service of the debt represented 7.8 per cent., of the value of Exports in 1861-64, fell to 4.8 per cent. in 1870-1875, rising again to 7.2 per cent. in 1886-1889, and finally falling to 5.1 per cent. in 1890-92, and 4.5 per cent. in 1893-94.

The position of Production and Exports has, therefore, considerably improved, in spite of the increase of 113.4 per cent. in the debt itself, if compared with the period 1861-64, the advantage for profits in 1890-92 being equivalent to 4½ per cent. of the value of Exports, as far as the foreign debt, alone is concerned.

The total debt including Treasury notes, has increased, from

1861, to 1864, by 535 per cent. whilst the charge for interest and amortisation has risen only 319 per cent. The cause of this discrepancy is to be found chiefly in the considerable proportion of the debt constituted by emissions of paper-money, termed Treasury Notes, which, bearing no interest, do not increase the cost of the annual charges.

The facility that an inconvertible currency affords for loans of this character, and of borrowing money without interest, and with no definite obligation of ever repaying, is probably the chief cause of its popularity with successive administrations in Brazil, as in other countries.

If, as the V. de Ouro Preto once sustained in a discussion in the Chamber, the quantity of paper-money in circulation does not influence its value, it is difficult to understand why he should have preferred to negotiate loans of the ordinary kind, and to pay interest in the old fashioned way, rather than recur to this simplest of all methods of "raising the wind without paying the piper." Dr. Ruy Barbosa, though sustaining a similar thesis, was more consistent, and entered on an extensive system of vicarious borrowing in consequence. Unfortunately the premises of both one and the other were wrong, and as a consequence we now enjoy exchange at 10d.

Government issues of paper-money are nothing less than forced loans in their must insidious and arbitrary form: and constitute an attack on private rights and private property just as much as the old fashioned system of extorting loans by torture, customary in less refined times before paper-money was invented.

The only manner possible, by which a new emission of paper money when gold has already been driven from circulation, can attain any value at all, is by depreciating what is already in circulation. The value of paper-money depends on the relations of demand and supply and the balance of international payments. The demand is constituted by all the products or objects, properties and services bought and sold, and the supply by the quantity of paper-money in circulation. If therefore the supply is augmented, whilst the demand remains the same, the value of the paper money must be thereby depreciated.

The depreciation of the paper-money in circulation would be attended by a similar depreciation of all debts and fixed incomes and charges, of public securities payable in currency amongst the rest, which will be the only classes of property and services thus affected, whilst all other property or services will be raised in price and value in a similar proportion.

Emissions of paper-money by the State are nothing less than

forced contributions to which the Capitalist class, that is the holder of the greater part of both the currency and public securities, contributes almost exclusively, and operates as a forced transfer of part of the property of one class to another, from Creditors to Debtors.

On moral grounds such a system of raising money cannot be defended, and must be only more unjust and injurious than the reversal of the operation by any systematic attempt to raise the value of a currency that has been long depreciated by artificial measures.

The real value of the annual charges for interest and amortisation of the National debt must vary like that of the debt itself with the value of the currency, increasing as exchange rises, and *vice-versa*, not in the same but in a less ratio! The reduction of the real value of charges for the service of the debt, consequent on a fall of exchange, will prove an administrative advantage only if revenue is not similarly affected, which it will be unless nominal taxation be proportionately increased; its influence on the international Credit (activo), or resources with which to meet foreign liabilities, will be inconsiderable, as the greater part of such payments are fixed charges not subject to alterations in value consequent on the oscillations of exchange.

Foreign Guaranteed Capital.

The guarantee of interest on industrial undertakings, although it cannot be classed as a debt, because there is no undertaking as regards the reimbursement of the principal, constitutes an obligation that exercises an influence precisely similar, and must be included with other similar undertakings when estimating either the international balance of payments or the cost of the annual charge for interest and amortisation of the debt.

In 1861, the policy of guaranteeing interest on foreign capital employed in public works, which in after years was to take so great a development, was in its infancy. The nominal capital guaranteed was then only Rs.52.222:223$ gold equivalent to Rs.6$200 gold per capita, whilst the coefficient of interest guaranteed was Rs. 0$433 gold.

In 1893 the nominal value of foreign guaranteed capital had risen to Rs. 158.381:867$ gold, or Rs. 10$150 gold per head, whilst the corresponding coefficient of interest guaranteed had advanced, even more rapidly than population, to Rs.0$ 653 gold per head.

The only guaranteed railways in actual traffic in 1861 were those from Bahia and Recife to the River S. Francisco, that of Santos to S. Paulo being then in construction. Up to that date these two lines had given a uniform deficit on their working expenses, and in 1861 alone, for many years previous and subsequent, showed an aggregate excess of receipts over expenditure, of Rs.8:659$ gold, or 0.46 per cent of the interest guaranteed, which amounted to Rs. 1.866:667$ per annum.

Starting from 1865, when the Santos Railway commenced its traffic, it will be observed that the relation of Expenditure to Receipts has been always in inverse ratio to the rate of exchange, increasing as it fell, and *vice verso*, with the exception of the period 1886 to 1889, when, in spite of exchange rising rapidly to *par*, the ratio of expenditure to revenue *increased* instead of diminishing, owing to the extraordinary growth of expenditure exceeding by 91.6 per cent. that of the previous period and also the simultaneous increase of revenue by 35.4 per cent.!

With this exception, the statistics prove that with a low rate of exchange, as would be expected, the expenditure is relatively greater than with a high rate. During the different periods of low exchange, since 1865, the ratio of expenditure to receipts has averaged 61.7 °/₀, and during those of high exchange 53.4 %.

The increased ratio of expenditure will tend to diminish the surplus of revenue on those lines only that previously gave a working profit, and to increase the deficit of those that did not, which latter represent 41 per cent. of the whole guaranteed capital. The decrease of the surplus will alone augment the burden of guaranteed interest, but even this will be compensated indirectly by the diminished cost of freight on the goods carried, and consequently of the cost of production and exports; whilst the loss resulting from the augmented deficits an the other class will fall entirely on the profits of foreign capital, and represent so much capital retained in the country, that would otherwise have been exported, and distributed abroad in the form of dividends.

Consequently, a low rate of exchange is from this point of view an administrative and financial, and not an economical disadvantage, the loss to the exchequer produced by the increase in the amount of guaranteed interest payable, being more than compensated in other indirect ways.

The only means of redressing the disequilibrium is to either decrease the cost of working expenses, or increase the revenue of the railways. As it is probable that the first cannot stand any serious reduction, the only alternative would be to raise the tariffs, which, however, would increase the cost of production and discourage exports.

Other considerations of a moral nature might, however, render it advisable to revise the tariffs in expectation of a more or less permanent depreciation of the currency; in that case it would be advisable to revise tariffs in such a manner as to ensure greater advantages for produce and exports.

With regard to the average annual receipts a continuous increase is noticeable in the coefficient, which has risen from 0$220 in 1865-1869 to Rs.1.$098 in the period 1890-1893, an average of 14 per cent. per head, per annum. During the periods of low exchange the average annual receipts per head were Rs. 0.$629, and during those of high exchange Rs.0.$640., the difference not amounting to 2 per cent., but being precisely the reverse of what would be anticipated, seeing that the increased quantity of produce exported in periods of low exchange should be evidenced in a corresponding activity in their carriage.

If, however, the comparative annual percentage of the increase of receipts is examined the discrepancy becomes more marked; that during the periods of a low rate of exchange averaging only 34.7 per cent., whilst with high exchange it has reached 66.6 per cent.

Little importance can, however, be attached to these seeming

contradictions, as the relations of the value of freights to that of goods carried is so complex and variable that it is difficult to draw any definite conclusions without first being in possession of all information as regards the opening of new lines, extension of old ones, the alteration of tariffs, and quantity and weight of goods carried, mileage of trains, &c.

If we examine the receipts of a single line, the Santos to Jundiahy, we obtain the following results.

Expenditure and Receipts of the Santos and Jundiahy (S. Paulo) Railway

PERIOD	ANNUAL AVERAGE RECEIPTS	ANNUAL AVERAGE EXPENDITURE	ANNUAL AVERAGE RECEIPTS PER HEAD	ANNUAL AVERAGE EXPENDITURE PER HEAD	AVERAGE ANNUAL INCREASE OF RECEIPTS PER HEAD	AVERAGE ANNUAL INCREASE OF EXPENDITURE	MOVEMENT OF EXCHANGE
	currency	currency	currency	currency			
1865—1869	1.790:391$	588:085$	0$200	0$065			Exchange falling
1870—1870	2.771:895$	925:317$	0$273	0$091	36.5 %	40 %	" rising
1871—1885	4.723:228$	1.590:087$	0$385	0$129	41 %	41 %	" falling
1886—1889	7.096:242$	1.712:014$	0$515	0$204	33.7 %	58.1 %	" rising
1890—1893	9.563:701$	7.457:836$	0$641	0$419	24.4 %	105.3 %	" falling

The results are now somewhat dissimilar. The average annual receipts per head during the three periods of low or falling exchange are Rs.0.$409 per capita, and exceed by 4 per cent. the average, Rs.0$394 per head for the two periods of rising exchange, thus confirming the previous conclusion that, during a low rate of exchange, exports and imports, and consequently traffic, will both increase in volume.

It will be noticed that the annual rate of increase of receipts has in this case shown a considerable falling-off for the period 1890–1893, from an increase of 37 per cent. for the previous period to 20.4 per cent., a reduction which would be inexplicable if the effect of the reduction in the tariff, which took place on renunciation of the guarantee, were ignored; that, by reducing the average receipts for that period, also considerably reduced the excess that the aggregate receipts during the three periods of falling exchange would have otherwise exhibited in respect to expenditure; and corroborates the statement that no correct conclusions can be drawn in this respect from the mere statistics of receipts and expenditure of the different railways without ample information as to the different modifications which have been effected in the tariffs, &c. If, however, the average annual quantity of goods carried per mile were compared for each period it is probable that the results would conform to our deductions.

From the data available, it is certain that the shrinkage of the annual rate of increase of receipts on the Santos line, during the period 1890–1893, is not attributable to any falling off in the volume of the traffic, as the total weight of goods carried has risen from 418,843 tons in 1889 to 607,309 in 1890, falling again to 428,034 tons in 1891, 419,046 tons in 1892, and rising finally to 568,694 in 1893.

The proportion of expenditure to receipts, shows, both in the general results for all the guaranteed lines and in that of the Santos and S. Paulo Ry. in particular, a similar remarkable increase, in the case of the Santos Ry. from 50.3 to 61.2 per cent. precisely when exchange was rising most rapidly, and when a considerable reduction would, therefore, have been looked-for. That this abnormal increase in the ratio of expenditure to receipts, of more than 20 per cent., was not due to any falling off in the traffic itself is proved by the fact that receipts had simultaneously risen 56.1 per cent. if compared with the previous period, 1876-1885; and it can, consequently, be attributed only to some powerful local disturbance independent of the value of the currency, such as a violent rise in the price of labour, or extraordinary expenditure on repairs and maintenance; but

the phenomenon is sufficiently interesting to merit special enquiry into its causes:

The total foreign capital actually employed in 1894 with guarantee of interest, national and provincial, amounts to Rs.158.351 : 867$, that guaranteed by be Nation alone to Rs.156.562: 298$, including both the Ceará Harbour Co. and the Santos and S. Paulo Railway and also the whole guarantee on the Bahia and Recife to S. Francisco Railways. The total interest guaranteed amounts to Rs.10.782: 693$ gold, and that guaranteed by the Nation only to Rs.10.286:130$. In 1893, of the total interest guaranteed Rs.2.054:079$ gold were earned by the different railways (equivalent to 4.822: 912$ currency), balance of Rs.8,728: 614$ having been made good by the State.

In 1889 the amount actually paid by the Nation on account of guarantees was, according to the official balance sheet, Rs. 6.525,983, which added to the surplus on working expenses for that year Rs. 5,671: 187 gold, gives a total of Rs. 12,197,170$ considerably in excess of the total interest guaranteed. It is, however, possible that the guarantees are not regularly liquidated, but accounts sometimes carried forward from one year to another, so that the amount of guarantee actually paid will not, and in fact does not, often correspond with that annually due.

The nominal realized capital of the foreign guaranteed companies is about Rs. 159,000: 000$ or Rs. 1.300: 000$ more than that actually guaranteed by the State.

The average rate of profits was, including capital expediture on improvement, etc., from 1861 to 1893, 6 per cent. per annum including the Santos Ry. and 5.8 per cent. exclusive of that line. The dividends actually distributed would, however, be somewhat less.

The actual market value of all foreign guaranteed capital is Rs. 141,157: 944$ and, consequently, the depreciation is equivalent to Rs.18,581:263$ or only 13 per cent. (1895);

Exclusive of the Santos and S. Paulo Ry. the realized capital is Rs.128,260:184$ and its actual market value Rs.100,122:586$, the depreciation, therefore, reaching, Rs.28,142:601$ or 22 % !

The actual market value of the stock and debentures of the S. Paulo Railway amount to 41,045:354$ a premium of 53.9 per cent. on its realized capital of Rs.26,667:000$.

As has been already pointed out the profits actually earned by the guaranteed companies, exclusive of the Santos and S. Paulo Ry., were in 1893 equivalent to only 0.31 per cent. on the corresponding guaranteed capital, the rest of the interest having been made good by the State. In consequence the

market quotations of these shares, in spite of the regular receipts of dividends, which in 1893 averaged for the thirteen guaranteed companies 3.86 %. per annum actually distributed, must depend almost entirely on the state of the National credit; if this suffers, the value of the stock must fall, and *vice versa*. The guage of the credit of a country is to be found in the market quotations of its debt; and when Brazilian 4 per cent. bonds are quoted at less than 80, it is to be expected that stocks, that depend almost entirely on guarantees for a dividend, should be even more depreciated, and, indeed, it is surprising that the debenture stock and bonds have not been affected in a greater degree, and in some cases stand at a considerable premium, when any failure on the part of the State to satisfy the guarantee must equally affect the probability of the payment of interest on these securities as on the shares themselves.

RAILWAYS	DIVIDENDS							QUOTATIONS 1894	
	1888	1889	1890	1891	1892	1893	1894	SHARES	DEBENTURES
	%	%	%	%	%	%	%		
Alagoas	5½	5½	6	6	5	Nil	5	13½	77
Bahia and S Francisco	6¼	6	6⅜	5¾	6	5½	5		
Do. Ramal Timbó	2⅝	2½	2⅝	3	3⅜	3⅝	3	7	
Brazil Gt. Southern	2	Nil	1	Nil	Nil	Nil	Nil		
Bahia Central	6½	6	6	4½	4½	6	6	61½	95
Conde D'Eu	4¾	Nil	5	4	4½	4½	4½	10	94
D. T. Christina	Nil	Nil	Nil	2	2	2	2	4½	81
Western Brazilian	5½	5½	5½	5½	6	6	6	15½	123
Minas and Rio	7	7	7	7	6¼	7	7	17	105
P. Alegre and N. Hamburgo	2½	2¾	2½	2½	2½	2½	2½	5	80
Recife and S. Francisco	5	5	5	5	5	5	5	—	92½
Southern Brazilian	5	4	5	5	5	3	5	12	90
Natal and Nova Cruz	3⅛	2½	2½	3½	4½	5	5	8	95
Average	4.26	3.59	4.19	3.36	3.43	3.86	4.30		

The average dividend distributed by the thirteen guaranteed companies was in 1868 with exchange at *par*, at the rate of 4.26 per cent. per annum; it fell to the lowest average in 1891, and rose again to 4.30 per cent. in 1894 although exchange had fallen to 10 pence! The average dividend for 1894 is, therefore, positively greater than that for 1888, and the fall in the prices

of these securities can, therefore, have no positive origin further than the general want of confidence that has affected Brazilian securities in the foreign markets.

In 1893 the aggregate surplus of all foreign guaranteed undertakings, exclusive of Sugar Factories and the Ceará Harbour, but including the Santos and S. Paulo Railway, amounted to Rs. 4.850:542$ currency, and, reduced to gold at the average rate of exchange current for that year, 10½d, was equivalent to Rs. 2.065:845$ gold, or 1.30 per cent. on the total capital guaranteed. Exclusive of the Santos and S. Paulo Railway the surplus wase quivalent to only 0.31 per cent. on the balance of capital guaranteed.

The interest guaranteed by the State on the nominal capital of Rs. 158.351:867$ amounted to Rs. 10.782:693$ gold, or an average of 6.8 per cent. per annum. Consequently there remained in 1893 a nett loss to the Exchequer of Rs. 8.466:642$ gold, equivalent to 5.5 per cent!

Movements of Receipts and Expenditure of all the foreign Guaranteed Railways from 1861 to 1893.

	Annual Average Receipts	Annual Average Expenditure	Ratio of Expenditure to Receipts	Average Population	Annual Average Receipts per head	Annual Average Expenditure per head	Increase of Receipts per head	Increase of Expenditure per head	Ratio of Increase of Expenditure to Increase of Receipts
	Rs.	Rs.	o/o	Rs.			o/o	o/o	o/o
1860 to 1864	2.313:595$	2.687:150$	116.1	8.200.000$	0$056	0$065			
1865 " 1869	10.154:728$	5.894:721$	58.4	8.950.000$	0$220	0$131	292.8	101.5	34.6
1870 " 1875	23.997.575$	10.981:538$	45.7	10.250.000$	0$390	0$178	77.2	35.8	46.3
1876 " 1885	69.876:933$	35.148:442$	50.3	12.250.000$	0$570	0$286	46.1	60.6	131.4
1886 " 1890	49.383:180$	30.216:441$	61.2	13.775.000$	0$890	0$548	56.1	91.6	177.1
1890 " 1893	65.391:735$	50.035:055$	76.5	14.900.000$	1$098	0$839	23.3	53.1	227.9
	221.127.746	94.176.970							

Summing up the sundry advantages and disadvantages that the system of guarantee of interest to foreign industrial capital confers, we find that although the failure of railway receipts to meet expenditure has entailed considerable expenditure on the

State, and thus increased the burden of its annual foreign payments, it has not really increased the aggregate of foreign payments to be made by the Nation, but, on the contrary, positively reduced them.

Whether the interest guaranteed is paid wholly out of working profits, or is paid directly by state subventions, so long as the value remain the same it must equally be met out of national resources. In other words the fact of the payment of interest being effected by the State does not increase the annual international Debit (passivo); on the contrary, when the necessity for such payment is caused by the depreciation of the currency, and not by a shrinkage of the volume of exports, a positive decrease of the annual international debit will result.

Such a conclusion leads, evidently, to the deduction that the greater the deficits of the guaranteed railways, the greater will be the advantage to the country; which, though it appears paradoxical, is true so long as the deficits are due to the reduction in the cost of freights at the cost of foreign capital, and providing they entail no corresponding deficit in the national finances.

If, however, it is indisputable that low freights favour production and exports, it is equally so that the failure of the receipts of guaranteed undertakings to satisfy expenditure must tend to increase still more the perennial deficits of national finance, that have, both directly and indirectly, exercised so fatal an influence on the real value of the currency and national economy in general!

The urgent necessity of re-establishing the national financial equilibrium on a stable basis is indisputable, and must entail some attempt to redress the balance between the receipts and expenditure of the guaranteed railways.

The whole sum expended in guarantees from 1861 to 1893 appears to amount to about Rs. 130.594:072$ gold; to this must be added Rs. 69.783:801$ gold earned by the different railways, resulting in the total of Rs. 200.377:872$ as profits, part of which, however, has remained to be reinvested in improvements and extensions.

The official value of exports for the same period was Rs. 6.498.402:054$ gold; so that the profits of the foreign guaranteed railways represented a tax equivalent to 3 per cent. on their value, of which the part paid by the State is equivalent to 2 per cent., and that paid directly, in the form of working profits derived from freights, to only 1 per cent.

Undoubtedly Production has realized great advantages from the fall in the value of the currency, and the consequent

reduction of the real cost of exports, in which the reduction of freights has certainly not been the least important factor.

Any attempt to redress the national financial equilibrium must necessarily include the consideration of expenditure on account of guarantees, and lead to the creation of resources to meet this item of national expenditure. This can be realized in two ways, either directly by raising tariffs, or indirectly by taxation.

Taxation has the advantage of falling on all producers alike. The increase of tariffs is impossible without still further exaggerating the natural advantages that situation confers on land nearer to the centres of consumption and shipment of its produce. Any considerable increase of the cost of transport would inevitably raise the cost of production of the more distant districts in a proportion increasing with the distance, until a point would be quickly reached when production must become unprofitable and would cease, whilst the increased cost in more favoured districts would be unappreciable.

For these reasons any considerable increase of freight must tend, if not to decrease production, at least to circumscribe its extension to a still more limited area than at present.

It is, however, probable that all, except perhaps the most distant districts, could suffer a not inconsiderable increase of freights without evidencing any appreciable reduction in quantity although profits must inevitably suffer.

Direct taxation, such as an increase of freights, has the advantage of quickly showing if it were so excessive as to injure production, and thus allow of reduction; but it would be difficult, and almost impossible, to devise a tariff that would take into sufficient account the advantages conferred by situation and locality, or not affect the production of exports, which is, after all, the main point to be kept in view when dealing with any scheme for realizing a permanent equilibrium of the National finances.

It may, then, be safely concluded that so long as the increased burden that revenue will have to meet to satisfy the falling off in the receipts of foreign guaranteed undertakings can be met by other means, and without creating or increasing deficits, the fall of exchange, in so far as it affects guarantees, is not disadvantageous except to the foreign Capital employed.

The value of foreign Capital employed in public works, with the exception of that part expended in the foreign country in commissions, discounts, and other expenses of a purely local character, will be imported in some shape or other, either as

material, as bullion, or else will be drawn for and must, therefore, be placed to the Credit side of international payments (*activo*), the material imported already figuring as imports to be paid for.

Making a liberal allowance of 50 per cent. of the nominal subscribed Capital for cost of incorporation, commissions, discounts and contractors' profits, the balance will go to increase the *activo* or annual international credit.

Guaranteed capital imported since 1865 is as follows:

	PERIOD	TOTAL NOMINAL CAPITAL	TOTAL CAPITAL IMPORTED 50 PER CENT. OF NOMINAL	COEFFICIENT PER CAPITA
		Rs. gold	Rs. gold	Rs. gold
1	1861—1864	13.200:000	6.600:000	0$377
2	1865—1869	7.947:000	3.973:500	0$132
3	1870—1875	3.680:547	1.840:273	0$444
4	1876—1885	94.121:614	47.060:807	0$576
5	1886—1889	6.678:460	3.339:230	0$091
6	1890—1892	1.110:240	555:120	0$037
	1893	3.746:391	1.873:196	0$122

With the exception of the fourth period, 1876-1885, the importation of foreign guaranteed capital was insignificant, and could exercise but little influence on the ultimate course of exchange. The average annual importation of capital, estimated at 50 per cent. for the whole period 1861-1892 was at the rate of Rs. 3.039:000$ gold per annum; in 1875-1886 it averaged Rs. 4.706:080$ per annum.

Independent Foreign Industrial Capital

The next factor of international payments to which attention must be paid is the Country's liability as regards the profits on foreign capital employed without special State guarantees in industrial undertakings, whether by public companies or private individuals.

This like the guaranteed capital does not constitute a debt except indirectly, nor even an obligation; but, no less than the interest on the funded debt and guaranteed undertakings, increases by the equivalent of the annual profits realized by the international obligations of the Country.

With regard to the more important section of this class of capital, invested in public companies the amount of foreign capital, exclusively English at that time, employed in Brazil in 1861, was insignificant, and did not much exceed £948.000, or Rs.8,426:772 gold, which was divided amongst the following companies: London and Brazilian Bank, £500.000, Bahia Gas Co. £150.000, S. Joao del Rey £298.000. In addition to these there existed the Catta Branca Mining Co., and probably some other unimportant undertakings, which have since ceased to exist, and the details of which it has been impossible to obtain.

Of all the forms in which foreign capital has been employed in this country none have lent greater services to the cause of Brazilian civilization and progress, or to the development of the resources of the country.

The total nominal value of the foreign capital invested in unguaranteed undertakings from 1861 to 1894 is about £21.597.511 equivalent to Rs. 191.980:275$ gold, and, deducting 50 per cent. for foreign local expenses, gives a minimum nett value of Rs.90.623:653 gold actually imported, or an average of R.2.832:000 per annum.

Of this large amount £1.970.313 have either been entirely lost or, having given no dividends for many years, have no market value, and may be written off as lost; in addition the sum of Rs. 6.113.970 (£688.938) has been liquidated and withdrawn from the Country, leaving a balance, in 1894, of about £19.538.799, or Rs. 173.680 340$, employed in the country and actually earning dividends of some kind.

The only period for which complete returns of the dividends actually paid have been obtained is that from 1876 to 1883 when they averaged 7.3 per cent. per annum, a rate that was largely

due to the splendid profits that the S. Joao del Rey mines were then yielding, which have since fallen to zero.

Estimating the average rate of dividends at 7 per cent. for 1860 to 1875, 6 per cent. for 1884 to 1891, and 4 per cent. from 1892 to date, we obtain the following results for the six different periods into which we have divided the 34 years from 1860 to 1895.

Foreign Capital Employed in Unguaranteed Undertakings

PERIOD	ANNUAL AVERAGE CAPITAL INVESTED	ANNUAL AVERAGE CAPITAL IN CIRCULATION	ANNUAL AVERAGE INCREASE OF CAPITAL AT 50 % NOM. VAL.	COEFF. PER CAPITA	ANNUAL AVERAGE PROFITS	COEFF. PER CAPITA	EXCHANGE
	Rs. gold	Rs. gold	Rs. gold	Rs. gold	Rs. gold	Rs. gold	
1860—1864	14.977:965$	14.969:076$	5.200:065$	0$254	1.047:955$	0$119	high
1865—1869	29.292:128$	29.192:117$	6.346:029$	0$287	2.035:311$	0$229	falling
1870—1875	46.012:326$	46,012:326$	17.301:482$	0$588	3.214:941$	0$313	rising
1876—1885	98.843:748$	81.880:116$	20.901:585$	0$242	4 545:690$	0$371	falling
1886—1889	122.561:924$	105.837:556$	13.505:973$	0$371	6.336:912$	0$460	rising
1890—1892	186.799:891$	164.235:526$	27.368:519$	0$760	8.092:992$	0$543	falling
			90.623.653$				

Contrary to what would be generally anticipated, the amount of foreign capital employed for industrial purposes and withont State guarantees has always varied directly as the value of the currency, increasing as the rate of exchange rises, and *vice-versa*.

To an undeveloped country of vast natural resources like Brazil, that requires to make constant use of foreign capital, it is of the utmost importance that the rate of exchange, or value of the currency, which affects directly and powerfully the profits of this class of capital, should vary as little as possible, as its stability is undoubtedly the principal factor in determining the investment of fresh foreign capital in this form.

The annual average additions to capital rose from Rs.0$254 gold per head, in the period 1860–1864, to Rs.0$760 in that of 1890-1894. The considerable accession in the rate of increase of this last period is in reality only apparent, and corresponds properly to the former period, having been negotiated, in great part, in 1889, and ought rightly to be included in that year's operations.

The lack of sufficient statistics regarding the profits of foreign industrial capital, except for the short period 1876 to 1883, makes it impossible to draw positive conclusions as to the comparative profits of different periods or to arrive at a precise estimate of the sums required to be added to the Debit of international payments (passivo) on this account.

Allowing that the estimated rates of interest are approximately correct the coefficient of interest has risen from Rs.0$119 per annum in 1860 to Rs.0$543 in 1894, or 339 per cent. The value of interest was highest in 1890-91, when it reached the sum of Rs 9441:362$, since that date is has decreased, in spite of the increase of invested capital, to about 8,000:000$ owing to the decreased real value of dividends in some cases, and to the suspension or reduction of its payment in others.

The low rate of exchange, therefore, in so far as it has affected the profits of foreign capital, although disadvantageous because it discourages its increase and thus retards the progress of the country, is not wholly so, as it also reduces considerably the value of foreign payments, and tends to preserve capital in the country, which would be otherwise exported, by the reinvestment of profits, in place of distribution in the shape of dividends.

The nominal value of the capital of unguaranteed foreign companies was in 1894 Rs.173,680:340, and its market value Rs.154,356:320$, thus showing a depreciation after deducting bad debts, of Rs.19.324:020 gold, equivalent to 11.1 per cent, that compares favourably with the rate of depreciation of guaranteed undertakings, 13 per cent.

The market quotations of this kind of capital are little influenced by the state of the National foreign credit, that so powerfully affects other classes, and depend almost exclusively on the profits realized, the comparative value of which, in turn, are principally determined by the value of the currency at the time.

The average market value of this class of security has been greatly influenced by the highly profitable nature of some ten out of the 44 foreign companies, amongst which are the London and Brazilian Bank, London and R. Plate and British Banks, Rio Gas Co., Cantareira Co., Submarine Telegraph, Mogyana, and West. S. Paulo debentures, and the Rio Claro Ry, Amazon Steam Nav. Co., and S. Joao del Rey Mining company, which on an aggregate nominal capital of £5,839,237 show an appreciation of £2,608,576 in their market value, or 44.6 per cent.

These flourishing concerns compensate to a considerable extent the comparative failure of others such as the Rio City Improvements, Pará Gas, Brazilian Street Tramways, Recife Drainage, various Sugar Factories, and the debentures of the Leopoldina Railway and its annexes, some of which have given no dividends at all for years, whilst that of others has been greatly reduced.

Foreign Capital employed in Commerce

The amount of foreign capital invested in purely national undertakings and in commercial operations is difficult, if not impossible, to estimate, but must be very considerable, and no doubt the annual profits when remitted abroad will add appreciably to the burden of foreign payments, though both their value and importance have been greatly exaggerated.

It must be borne in mind that investments so employed by foreign residents are usefully engaged as productive capital in some form or other, and that whatever profits may result from such employment a *quid-pro-quo* has been rendered in the increased value or diminished cost of production and exports. Consequently, though the withdrawal of such profits may retard the rate of accumulation of capital and national wealth, it cannot diminish it, nor enhance the proportion of liability to resources to meet foreign engagements; and cannot, therefore, be a cause of the disequilibrium of real exchange and depreciation of the currency, though it may tend to perpetuate, or exaggerate it.

Undoubtedly, were it possible to avoid any transfer at all of profits to foreigners or residents abroad, the burden of foreign payments would be relieved, both capital and national wealth would increase more rapidly, and international exchange would improve, just as it would if the payment of interest on the foreign funded debt or guarantees were suspended or repudiated; but though the suspension might create a temporary relief and miprove the proportion of the international credit (passivo), the original excess of foreign payments could never have originated in this description of profits.

In regard to the commercial profits realized by foreigners a still greater confusicn of ideas is prevalent, that extends to even the most intelligent critics of Brazilian economy. Thus we find Dr. Ruy Barboso in the report of the Ministry of finance for 1890 state that "the balance (of trade) favourable to the country is drained away to foreign countries, thanks to a fact little appreciated but of the greatest importance in the consideration of the anomalies of our exchange. No one ignores that our commerce, and especially its wholesale branches, is almost wholly in the hands of foreigners. These accumulators of wealth reserve it chiefly for their own countries, where their aspirations are concentrated, and whither they return with the capital or its interest, that up to the present has not

been conveniently taxed in benefit of the country at whose expense it has been acquired. This tendency constitutes a permanent factor of national impoverishment, inverting the otherwise really favourable balance of international payments!"

In this astonishing statement Dr. Ruy Barboso does not show his usual perspicacity nor his accustomed intelligent appreciation of economical phenomena, and appears to have allowed the chauvinistic element to get the better of his judgment; this is the more alarming in a person of his attainments and abilities when be proceeds to insinuate the necessity of limiting the compensation of the industry of the foreign section of the population by special and odious taxation!

It appears to have completely escaped the attention of *quasi* reformers of the financial and economical equilibrium that the accumulation of wealth in the pursuit of commerce, as in industrial occupations, demands either labour or capital, or both, and that it is not gained at the *expense* of the country, but in the development of its resources, to which Commerce contributes none the less because its votaries do not absolutely follow the plough, nor till the soil with their own hands.

No one, it would be imagined, would seriously maintain that a colonist, to take an example, who realizes a fortune out of agriculture by his own unassisted labour, has made it at the expense of the country in which he happens to labour, or that if he lives on the profits, or even carries the whole of his accumulations away with him to a foreign country, that he has therefore impoverished that country and abused its hospitality!

He has, on the contrary, introduced at least one, and perhaps, two new factors of National wealth and prosperity, his own labour or capital, or both, with which he renders productive what had not been so previously, and would have continued unproductive without him.

All that he produces must, therefore, be so much pure gain to the country; and even if after deducting a part for payment of his own consumption and of the States' taxation something remains over which he accumulates and finally takes with him to other countries, be will not thereby have impoverished that country, but really have enriched it by at least the difference between the gross and nett value of his labour during the whole time of his residence.

Had this 'accumulator of wealth' never entered the country, it must have been the poorer; and though there could then, it is true, he no drain of gold to satisfy the profits he may eventually spend abroad, there would likewise be so much less increase of production and exports with which to meet them.

When finally this 'accumulator of wealth' returned to the fatherland, on which he had 'concentrated his aspirations' he could not take with him even an equivalent of the labour and capital be had expended; part of it must remain behind. At most what he took would be equivalent to the surplus after having paid for his own consumption and taxation like every one else. The wealth his labour and economy created he could not take away; and this, in the form of new lands brought into cultivation and new railways constructed, or his individual fractional share in their creation, must remain behind, and continue to be productive even after be had left, and to satisfy the interest on which he lives abroad, if the capital is left behind.

To attempt to impose special taxes on profits of this description would involve the gross injustice of re-taxing differentially and partially what had already paid its *quantum suf* to fiscal exigency !

In a manner precisely similar, though less direct, those occupied in Commerce, of whatever kind, whether import or export, wholesale or retail, cooperate in the general development and progress and contribute to the productibility of the country by the division and economy of labour; and, though it may be regretted that in Brazil, as in every other country, the rewards of labour are not more equitably distributed, it does not appear that to unfairly tax that reward is likely to redress the inequality, nor, in fact, to do any thing except discourage both industry and the importation of foreign labour and capital, so essential to national development.

The moment that the 'accumulator of wealth' commenced to mobilize his accumulations and took himself off to foreign lands there must ensue a reduction in the volume of capital and consequent proportional decrease of production, unless the realization were effected with the intervention of foreign capital. At the same time the transfer of his accumulations would cause an increased demand for bills and disturb the equilibrium of international exchange; and, if such a practice were general and continuous the balance of international payments might be seriously affected, and exchange be rendered permanently unfavourable.

It is not, however, true that the accumulated profits of either industry or commerce are as a rule transferred *en masse* to foreign countries, on the contrary, usually both the original capital and the accumulations are left in the country, either as investments or to serve as working capital for the continuation of the same business, and only the interest, and often only a part of that, is ultimately exported.

The transfer of interest or annual profits alone will cause no change in the relations of capital which will continue to produce the same quantity of exports as previously, and the only difference will be that the equivalent part of the value of exports that formerly went to increase the savings of the 'accumulator' and the community, will now be payable abroad.

The fact that accumulations had been effected entails, beyond the necessary labour, both economy and self denial. Had the 'accumulator,' in place of saving, expended the whole in superfluities, he would thereby not only have increased the demand for imported commodities, but also have prevented the increase of capital and production that his economy otherwise created.

Consequently, the equilibrium of foreign payments would have been similarly affected as by the ulterior bodily transfer of it abroad, whilst the country itself must have been the poorer for capital having remained stationary, instead of increasing.

Production remaining unaltered, the equivalent of that excess of exports, that must have corresponded to the annual profit realized, will then be payable abroad, instead of at home, and thus increase the demand for bills; but no disequilibrium of international payments will thereby be created unless other foreign expenditure has meanwhile encroached unduly on the moiety of exports that properly corresponded to these profits, or savings. It would then be but a poor recompense for thrift and self denial that its fruits should be unfairly taxed to pay for others' extravagance.

Sr. Manuel Rabello, the then Brazilian Consul in Porto, in a letter dated 1885 addressed to Rodriguez de Freitas, hits the right nail on the head in laying the blame of the fall in exchange, that had then taken place, not on the drain to satisfy the investments in Brazil of residents abroad, which he admits to be considerable, but on the extravagance of those that instead of accumulating, spend all they earn in luxuries or superfluities.

He states that — "The fruits of economy and the product of capital employed in Brazil, in place of being usefully employed in the creation or development of its industries, is not thus applied and emigrates to other lands. By emigrating I mean that this sum is employed in the acquisition of costly goods, thus exhausting our markets of what we require to satisfy our own necessities."

If, then, it were even true that resources were insufficient to satisfy foreign liabilities, the origin of this want of equilibrium cannot be attributed to the annual withdrawal of the profits resulting from the investment of the economies of industry and thrift, but rather to the excessive expenditure of that other section that

refuses to follow their example, and to the foreign expenditure for admini trative purposes, which together absorb not only their own share of the value of exports, but also encroach on that which rightly corresponds to private capital productively employed by foreigners or residents abroad.

Any attempt to tax unfairly or differentially the profits of foreign capital can only result in the withdrawal of both capital and labour when a favourable opportunity presents itself.

The foreigner, unless he be able to satisfy the aspiration he has concentrated, as Dr. Ruy Barboso states, in ultimately spending the product of his labour and self denial in his own country, would refuse to labour or economize unless such conditions were guaranteed, or seek more liberal treatment in other countries.

In consequence of a fall in the rate of exchange a part of the interest or profits that accrue to foreign capital will remain to be re-invested in the country, or be deposited in banks awaiting a higher rate, and thus increase the volume of capital available for production and commerce.

This well recognized phenomenon, that is repeated every time any serious fall of exchange occurs, gave rise to a discussion in the Portuguese journals in 1886, in which some novel and startling theories were originated. A certain Mr. Kendall of Porto sustained the cause of the fall of exchange "to be the abundance of capital retained in Brazil awaiting a favourable exchange to emigrate. In consequence the banks, replete with cheap capital, not only refuse to draw, but are directly interested in impeding others from drawing in order not to be deprived of such profitable resources."

Mr. Kendall has thus confounded cause with effect, or as Sr. Rodriguez de Freitas terms it, made out the agglomeration of capital in the banks to be both the cause and effect of the fall in exchange, or "its own father."

The tendency to reinvest profits, if even for a limited period, whenever exchange falls considerably must meanwhile reduce the normal demand for bills, and will prove a real advantage by retaining capital in the country, for a time at least.

FOREIGN CAPITAL INVESTED IN BRAZIL

	National Foreign Loans		Unguaranteed Capital		Average Ann. Value Foreign Guaranteed Cap. Nominal Value	Total Foreign Capital Invested	Total Average Ann. Value of Interest Earning Foreign Capital in Circulat.	Annual Average Value Provinc. and Municipal Loans	Grand Total of Foreign Interest Earning Capital Invested	Average Annual Gr. Total of Foreign Interest Earning Capital in Circulat.	Coefficient	Average Annual Increase of Foreign Capital in Circulation
	Total Nominal Capital Invested	Average Annual Nominal Value in Circulat.	Average Annual Nominal Capital Invested	Average Annual Value in Circulat.								
	a gold	b gold	c	d	e	—c—e gold	b—d—e gold	Nominal				
1861	100.550:826$	68.101:652$	9.937:900$	9.937:900$	33.266:667$	143.755:393$	111.306:271$		143.755:39?$	11.306:221$	13$741	
1861-1864	135.930:588$	76.124:818$	15.354:652$	15.354:652$	38.216:667$	151.285:233$	129.696:137$		151.285:233$	129.696:137$		16 o/o
1865-1869	197.830:027$	127.243:012$	29.238:680$	29.238:680$	50.184:890$	227.068:707$	208.666:582$		227.068:707$	208.666:582$		59 o/o
1870-1875	275.702.718$	141.822:366$	46.024:533$	46.024:533$	54.281:403$	376.008:654$	242.128:302$		376.008:654$	242.128:302$		17 o/o
1876-1885	316.590:624$	162.057:928$	88.828:558$	81.880:118$	102.000:499$	507.419:681$	345.938:545$		507.419:681$	345.938:545$		43 o/o
1886-1889	443.405:944$	220.827:427$	122.562:023$	105.849:133$	152.489:443$	716.467:410$	479.166:000$	7.150:000$	723.607:410$	486.316:001$		40 o/o
1891-1892	639.041.765$	259.928:286$	184.230:459$	160.590:840$	153.188:964$	979.461.188$	573.708:098$	10.234:000$	986.695:188$	583.942:098$		20 o/o
1893	639.041:765$	261.812:162$	189.348:242$	165.714:906$	157.496:117$	985.886:224$	585.023:185$	24.196:000$	1010.082:224$	609.213:185$		4 o/o
1894	639.041:765$	281.377:302$	191.980:275$	173.683:340$	158.602:784$	989.824:524$	613.861:426$	25.379:000$	1015.203:524$	639.240:426$	10$902	4 o/o
1895	692.375:705$	351.837:910$	191.364:365$	167.469:359$	158.802:784$	1042.542:854$	778.108:053$	25.182:000$	1067.724:584$	803.255:053$		

Total value of Foreign Capital employed in Loans, Guaranteed, and Independent Industrial Undertakings

The total value of foreign capital thus employed, including provincial and municipal loans, has risen from Rs. 111.306:211$ gold, or 13$741 gold per capita in 1861, to Rs. 639.240:426 gold or 40$912 per capita in 1894.

The most considerable increase of foreign capital was in the period 1865-1869 during the Paraguayan war, when it rose 58 per cent., principally in consequence of the large foreign loans then negotiated.

The importation of foreign capital has been greatest during the periods of low exchange, when it increased on an average 47 per cent.; whilst during those of high exchange the increase was only 24 per cent.; a result is due chiefly to the negotiation of foreign loans, as the importation of private capital for unguaranteed undertakings shows contrary results.

The total nominal value of foreign capital invested in Brazil from 1824 to 1894 amounts to Rs. 1015.203:524$ gold, of which, however, only Rs. 639.240:426$ is actually in circulation or productively employed, the balance having been amoitised, withdrawn, or lost. The amount of foreign capital of this description believed to be employed in Brazil has been greatly exaggerated, and did not much exceed £72.000.000 in 1894.

The figures of the preceding table conclusively show that foreign capital, in whatever shape it may be imported, is powerless either to arest the fall or to raise the rate of exchange except temporarily when not in cooperation with other more powerful, and less artificial causes.

Thus in 1865-1869 in spite of the increase of 59 per cent. the largest on record, foreign capital could not arrest the fall from 27d. to 14d.

In the next period the comparatively insignificant assistance, equivalent to an increase of only 17 per cent. in foreign capital, cooperating with increased production and high foreign prices of exports, raised exchange to *par* in the short period of 5 years!

An increase of 10 per cent. during the succeeding period 1875-1886, but accompanied by low foreign prices for exports, could not arrest a fall from *par* to 17½d; whilst a similar increase in 1886-1889, cooperating with improved prices and out-put, raised exchange to *par* again in four years!

Of the different forms in which foreign capital is employed the increase of that of unguaranteed industrial capital has been greatest, 1.647 per cent., whilst that employed in loans increased 313 per cent., and guaranteed capital 377 per cent. The capital invested in unguaranteed industrial undertakings was in 1893 Rs. 173.681:340$ gold or little more than half that invested in government loans and guaranteed railways, which amounted to Rs. 340.170:086 gold.

Of the whole increase of foreign capital since 1861, by far the greater part, if we include government expenditure on railways, has been employed in such a manner that, if not actually and directly productive, must ultimately become so, and thus relieve revenue of a part of the burden of foreign payments, though it will not diminish their value.

In point of fact this is already in process of realization, although it is scarcely evidenced by any reduction in the value of guaranteed interest payable by the State; but, none the less, a decided advantage has been conferred on production and exports by reducing their cost, and that, to a considerable extent, at the expense of profits of foreign capital, a result due chiefly to the depreciation of the currency.

Annual charges for Interest, Amortisation, and Profits of foreign Capital.

PERIOD	ANNUAL AVERAGE PROFITS OF THE GUARANTEED RAILWAYS Rs.	COEFFICIENT	ANNUAL AVERAGE PROFITS OF UNGUARANTEED COMPANIES	COEFFICIENT	ANNUAL AVERAGE FEDERAL CHARGES FOR INTEREST AND AMORTISATION OF FOREIGN DEBT		ANNUAL AVERAGE SERVICE OF PROVINCIAL AND MUNICIPAL FOREIGN DEBT		ANNUAL AVERAGE CHARGES FOR PROFITS OF FOREIGN CAPITAL		RATIO OF TOTAL CHARGES TO VALUE OF EXPORTS
	Rs. GOLD		Rs. GOLD		Rs. GOLD		Rs. GOLD		Rs. GOLD		o/o.
1861—1864	1.429:824 $	0$173	1.162:476 $	0$140	11.032.079$	1$377			13.624.379$	1$690	9.6
1865—1869	3.008:101 $	0$336	2.035:311 $	0$227	8.529.368$	0$954			13.572.700$	1$517	9.2
1870—1875	3.886:769 $	0$384	3.223:274 $	0$318	10.033.850$	0$991			17.143.894$	1$693	8.2
1876—1885	6.522:307 $	0$538	4.545:690 $	0$374	12.925.844$	1$066			23.993.841$	1$978	12.2
1886—1889	10.563:125 $	0$761	6·336:912 $	0$456	16.440.387$	1$184	204.250$	0$015	33.544.674$	2$216	14.6
1890—1892	9.979:388 $	0$677	8.154:988 $	0$552	64.482.666$	4$370	528.334$	0$035	32.259.519$	2$155	
					13.596.859$	0$871					12.1
1893	10.353:631 $	0$676	8.000:000 $	0$523	13.336.033$	0$870	1.170.527$	0$076	32.860.191$	2$146	11.2
1861	1.126:346 $	0$139	695:365 $	0$086	5.122.157$	0$632	NIL	NIL	6.944.156$	0$857	4·3

From 1861 to 1893 the coefficient of the annual profits of foreign capital has risen from Rs. 0$857 gold to Rs. 2$146 per head, or 150 per cent.

It is clear that in the absence of a metallic currency all foreign liabilities must be liquidated by means of exports. Consequently, the increase of the profits of foreign capital must demand 150 per cent. more of the exports per head to be appropriated for their payment abroad than formerly, and, unless exports themselves have likewise increased in the same ratio as foreign liabilities, the balance to receive must be reduced proportionately.

Foreign payments would not, of course, be effected directly in commodities but in their equivalent of bills, for which there would be an increase of 150 per cent. in the demand, from this cause alone. Unless, therefore, the supply was equal to the increased call upon it real exchange must have fallen.

The appropriation of a moiety of bills for the liquidation of foreign charges is precisely similar to an equivalent tax on production and exports; and its incidence may be estimated by the comparison of the respective coefficients of exports and foreign charges per head.

In 1861 foreign charges demanded only 4.3 per cent. of the real value of export for their liquidation, whilst in 1893 the proportion had risen to 11.2 per cent.; unless, therefore, the growth of charges per head has been accompanied by a simultaneous growth of production, profits must have been reduced.

In 1861 the value of exports per head was...	Rs. 17$005 gold
and foreign charges amounted to..............	Rs. 0$857 "
leaving a balance to receive, per head, of......	Rs. 16$148 gold
In 1893 the value of exports rose, per head to	Rs. 19$083 gold
and foreign charges to............................	Rs. 2$146 "
leaving a balance, per head, to receive of......	Rs. 16$937 gold

In spite, therefore, of the increase of 150 per cent. in the burden of foreign charges, the profits of production have actually increased 4 per cent. since 1861, as far as these charges alone are concerned.

Comparing these results with 1889, when exchange was at *par*, the advantage is still more striking.

In the period 1886–1889 the production of exports per head was..	Rs. 16$460 gold
and foreign charges amounted to....................	Rs. 2$155 "
leaving a balance of..	Rs. 14.305 gold

or Rs .2$632, per head less than in 1893.

The value of foreign charges per head has, it will be noticed, diminished slightly since 1886-1889, in spite of the considerable increase of indebtedness. This is due to the combined effect of the reduction of interest caused by the conversion loan of 1889-90, and of the depreciating influence of the fall of exchange on the real value of dividends of foreign industrial capital, and on that of the amortisation of the foreign funded debt.

The increase in the profits of production since 1886-89 shows that in Brazil industrial prosperity is largely independent of the financial situation, and that it may be often simultaneous with financial disorganisation as is also the case in the R. Argentina.

The actual situation may be summed up and compared with that of 1886-1889 in few words: Since 1886-1889 the value of foreign capital invested has increased 30 per cent., whilst the charge for interst and profits has remained almost stationary. Brazil, therefore, has borrowed more, but pays the same interest as before, and, moreover, has more exports in 1893 than in 1886-1889 with which to do it. The condition of the country must therefore have vastly improved!

This, it is true, is due in part to the reduction of interest effected by the conversion of 1889; but this alone would have been insufficient to prevent a positive increase in the value of foreign charges except in cooperation with other causes.

Exports and Imports of Merchandise

The next factor of international payments to be considered, and by far the most important, is the value of imported and exported merchandise; the first constituting a debt payable by Brazil, and the latter a value receivable.

It is not disputed, or should not be so, that exports must pay for imports; the only question to be decided is whether they have likewise sufficed to liquidate, in conjunction with other resources, all other international liabilities.

What, then, is the true value of imports or the true liability for this factor, and what the nett or chancelling value of exports, becomes a matter of great importance to decide, without which no positive conclusions as to the causes of the depreciation of the currency are possible, or better than mere conjectures.

That the utmost confusion reigns relative to the real value of imports and exports is evident in the conflicting opinions and assertions of even the most competent critics, as also, that little confidence is reposed in local official valuations.

Thus we find Dr. Ruy Barboso, in his report as Minister of Finance in 1890, stating that the value of imports for the year 1886 to 1887, with the additional half year, amounted to Rs. 162:000:000$, whilst he estimates the value of exports at only Rs. 151.000:000$, leaving a balance of Rs. 11.000:000$ against exports. From this he proceeds to draw deductions as to the causes of the depreciation of the currency, which, however, he appears to have reconsidered, as in a posterior document dated 10th May 1891, he states that :—

"In 1887 exports exceeded imports by Rs. 54.741.935$, but " exchange continued weak between 21 $^{26}/_{32}$ pence and 23 $^{6}/_{32}$. The " next year, on the contrary, during which imports exceeded " exports by Rs. 48.406.887$, exchange rose from 24 $^{1}/_{16}$ d. in " January to 27 $^{1}/_{16}$ d. in December. On the other hand the official " returns for 1886 to 1887, comprising 18 months, give the value " of imports as Rs. 310.850:277$, and those of exports at Rs. " 305.502:152$, leaving an apparent balance in favour of exports " of Rs. 54.741:935$"

This result is, however, purely fictitious, as without the indispensable corrections the official valuations of exports and imports are not only worthless for comparative purposes, but are bound to mislead the unwary, just as they misled Dr. Ruy Barboso and many others.

The official estimates of exports represent merely their nominal market value in Brazil, that is their market price in

paper-money, which is appraised according to a sliding official scale of prices termed the *pauta*.

To this valuation must be added all local expenses from date of purchase to that of delivery of exports on board in a Brazilian port, which includes commission, duties, brokerage, storage, packing and loading, as also the merchants' profits, in order to obtain the value F.O.B. which, when reduced to gold at the current rate of exchange, represents the real value of exports for which Brazil is creditor to foreign purchasers. Freights, being payable to foreign bottoms, must not be included; or, if included, must be debited again to the international debit or passivo, as a liability.

Unless these corrections are previously made official valuations are meaningless, and represent nothing more than the local market value of exports expressed in paper-money, and not in any manner the international value for which Brazil is creditor.

The average rate of exchange for 1886-1887 was about 22½d., and at this rate Rs. 305.502:152$ the estimated official value of exports for 18 months will be reduced to Rs. 273.118:954$ gold. The official valuation of imports, on the other hand represents their real, and not their nominal value, when the official scale of prices is based on the *par* value of exchange 27d.; when, however, they have been appraised at the rate of 24d., the real value of imports will be 11.1 per cent. less than their gold or *par* value.

Any attempt therefore, to compare the official value of exports estimated in paper-money with those of imports, which represent approximately their real, or gold, value, without taking all these circumstances into due consideration, is certain to lead to error and misconceptions.

Allowing 15 per cent. of their nominal value for expenses from date of purchase to delivery on board, the relative real values of exports and imports for 1886–1887 will be as follows : —

Nominal value of exports Rs.305.502.152$ at 22d., exchange is equivalent to...........	Rs 273.118:954$	gold
Local expenditure from time of purchase to delivery on board, estimated at 15 °/₀......	" 40.967.707$	"
Real value of export F.O.B. for 1886-1887, 18 months	Rs. 314.086:661$	gold
Nominal value of imports, official valuation	Rs 310.850:277$	gold
Less 11 per cent. difference between 24d. and 27d..	" 34.193:530$	"
Real value of imports on board in port...	Rs.276.656:747$	gold
" " Export— " "	" 314.086:661$	"
Balance in favour of exports for 18 months	Rs. 37.429:914$	gold
Equivalent for......................12 "	" 24.949:276$	"

In a similar manner the foreign valuations of exports and imports that Dr. Ruy Barboso presents for comparison, must be reduced to their real value on board in a Brazilian port, before they can be of use.

The foreign valuations of exports to Brazil (imports by Brazil) represent usually their value on board in a foreign port. To this must be added all expenditure for freights insurance, etc., up to delivery in a port in Brazil, calculated at 20 per cent. of their foreign valuation, in order to obtain the real value for which Brazil is debtor on this account.

The foreign valuations of goods imported from Brazil, on the contrary, represent, with the exception of the U. States, the total value delivered on board in a foreign port, including freights and expenses; from this must be deducted 15 per cent. for such charges such as freights, payable mostly abroad, in order to arrive at the real value of exports for which Brazil is creditor.

The custom in the U. States is to value imports at their market prices in the country of origin; consequently, no deduction should be made for exports for this destination, on the contrary, the value of expenses up to delivery on board should be added.

Even when these deductions have been made the foreign valuations of imports from Brazil will rarely correspond with the official local valuations of exports, because the standards for valuation are not the same, and in the case of foreign valuations are based usually on official prices, which have often little resemblance to their real market value.

Foreign valuations 1886-1887 according to Dr. R. Barboso's Report of the Ministry of Finance, 1890: —

	Imports from Brazil	Exports
	Rs.	Rs.
United States	90.000:000$	14.000:000$
Germany	45.000:000$	8.000:000$
England	39.000:000$	52.000:000$
France	17.000:000$	2.000:000$
Austria	20.000:000$	1.000:000$
Belgium	8.000:000$	5.000:000$
R. Argentina	4.000:000$	5.000:000$
Portugal	4.000:000$	9.000:000$
Uruguay	3.000:000$	5.000:000$
Chile	1.000:000$	
Total	R.231.000:000$	119.000:000$

En passant it may be remarked that there is evidently some mistake as regards the value of imports thus estimated by Dr. Ruy Barboso, as the sum of the values for different countries amounts to 101.000 contos and not 119.000 as stated; probably a printer's error.

Dr. Ruy Barboso writes "the source from which I obtained these notes leads me to see in these figures at least an approximation to the truth, if the absolute truth, to which they do not pretend, is impossible in a matter of this kind. If matters were thus we must conclude that our exports exceed our imports considerably in value, establishing between them the ratio of 231:119.

However it may be, these elements should warn us from trusting in the hypothesis, that is more or less accepted amongst us, that the value of foreign imported merchandise exceeds considerably and constantly that of national products absorbed by foreign countries."

Thus we observe D. Ruy Barboso in the course of a few months, sustaining first that the value of imports, was chronically less than that of exports, and afterwards a diametrically opposite opinion that, however, would be of little importance did he not proceed to draw therefrom the most serious conclusions, and to put his deductions into practice.

The year selected by Dr. Ruy Barboso, 1886-1887, is particularly inconvenient for comparative purposes, the official valuations including 18 months for that particular year, and entail the necessity of reduction to the equivalent for 12 months in order to serve for comparison with the valuations of the foreign customs.

Duly corrected the real or international value of exports, as presented in Dr. Ruy Barboso's foreign valuations, for 12 months only of 1886-87, will be as follows:

Dr. R. Barboso's estimate of value of imports by Brazil..................................gold	Rs. 119.000:000$
plus freights and expenses 20 per cent......	" 23.800:000$
Real value of imports for which Brazil is debtor	Rs. 142.800:000$

Dr. Ruy Barboso's foreign estimate of exports gives for the U. States Rs. 90.000:000$ gold, and for all other countries Rs. 141.000:000$, total Rs. 231.000:000$ gold.

With the necessary corrections for freight, etc., this gives :—

Value of Brazilian exports to all countries except U. States..............................gold	Rs. 141.000:000$
Deduct freight and expenses 20 per cent....	28.200:000$
	Rs. 112.800:000$

Add value of exports to U. States .... gold	Rs.	90.000:000$
Real, or international, value of Brazilian exports .... gold	Rs.	202.200:000$
Deduct value of imports		142.800:000$
Excess of exports over imports .... gold	Rs.	59.400:000$

In lieu, therefore, of a balance in favour of exports of Rs. 112.000:000$, which Dr. Ruy Barboso supposed to be the approximate expression of international trade with Brazil, the real excess of exports, is reduced to Rs. 59.400:000$, and though this corresponds much more approximately with the excess for the same period of local official valuations, when duly corrected, of 24.949:276$, gold the difference between one and the other is still so considerable as to exact a special enquiry as to which is the more correct; since any attempt to found deductions on unreliable statistics must inevitably destroy all their value.

In estimating the real value of Brazilian imports and exports by the assistance of valuations of foreign Customs, it is necessary to take into consideration the methods by which these valuations are effected in each case; as it is chiefly due to the neglect of this important preliminary that the estimates of values of one country rarely correspond with those of another.

Merchandise Imported by Brazil from Great Britain

The statistics obtained from British Customs' valuations of the importation by Brazil of British products are complete from the year 1865 to 1893, with the exception of the years 1869, 1870 and 1879, for which averages have been struck.

The system of valuation adopted in England is as follows:—The valuation of both imports and exports of the United Kingdom is according to the bills of entry and the shipping bills; false declarations being punishable by fine. In the case of imports the control of the customs' administration is a guarantee of the accuracy of the returns, but as regards exports merchants are only required to furnish their declarations within a period of six days after the sailing of the vessel; and the proof of accuracy, if proof be needed where no duties are paid and there is no advantage to be gained by misrepresentations, lies in the inspection of the bills of lading. The valuation of exports and imports is checked by the statistical office of the customs, where the officials possess a knowledge of current values, and market reports and prices current are available to check any departures from accuracy in this respect. The important difference between the U. Kingdoms' and other systems is that the former shows the values at the time of import and export, whilst in most other countries the values are computed at the prices of a year, or more, before.

For goods imported the practice adopted is to take the value at the port of entry including all incidental expenses up to landing on the quay. For goods consigned to the English market for sale, the market value in the country is what is sought to be known and included in the returns, this is ascertained from the declarations made by importers, and is checked by expert knowledge, price lists and market reports.

For the exports, the value at the port of shipment is taken. Imports from England by Brazil should correspond to the exports from that country, and their real value, that is, the sum payable by Brazil to England on account of imported goods, will be the valuation at the port of shipment in England *plus* the cost of delivery aboard in a Brazilian port, which includes freight, loading insurance, and commissions. Port charges and all other expenses after arrival in a Brazilian port, being payable in Brazil, do not form part of foreign liabilities.

In order to arrive at the maximum rather than the minimum cost of delivery, and in accordance with information collected from various importing houses of different kinds, the average cost of 20 per cent. of the European valuation has been adopted for all charges from the port of shipment to a Brazilian port. No doubt the average is high, especially for English goods, which being mostly of little bulk pay a low rate of freight; but, taking one country with another, this may be taken as a rate that is not likely to be exceeded, and the resulting valuation of imports as the maximum; so that any modifications that might be introduced on a more careful study, are more likely to be favourable to the international credit (activo) than otherwise.

The imports from Great Britain are by far more important than those from any other country, and have for many years maintained great regularity.

The Annual average value of Imports from Gt. Britain; on quay in English port: —

PERIOD	VALUE	INCREASE OR DECREASE	MOVEMENT OF EXCHANGE
From 1865 to 1868	gold Rs. 51.858:442$		falling
" 1871 " 1875	" " 66.083:487$	+21.4°/o	rising
" 1876 " 1885	" " 57.524:371$	−14.9°/o	falling
" 1886 " 1889	" " 54.430:677$	− 5.6°/o	rising
" 1889 " 1893	" " 71.067:279$	+30.5°/o	falling

The great increase that has taken place since 1889 is especially noteworthy, equivalent to 30 per cent. on the previous period, when exchange rose to *par*, because it will be found that this, or a similar increase, is not peculiar to British imports alone, but extends to those from almost all other countries for this period. Nor yet is it the effect of a spasmodic demand such as was created by the speculation of 1889-90, but of a continued and steady demand that in spite of exchange having fallen to the lowest rate it has ever reached, and of the consequent tremendous rise of the currency prices of all imported commodities, has been maintained for 4 years without any indication, so far, of a reduction.

The foreign valuation, of exports and, it is to be presumed, the official valuation of imports also, covers every description, whether for government or private account, and will, therefore

include all the foreign expenditure of the State for purchase of war or construction material, and official foreign purchases of every description; these items, therefore, must be excluded from the government expenditure abroad when estimating the total value of international payments (passivo), as otherwise they would be counted twice over.

Brazilian Exports to Great Britain: —

PERIOD	AVERAGE ANNUAL VALUE GOLD	RATIO TO IMPORTS	INCREASE OR DECREASE	MOVEMENT OF EXCHANGE
	Rs.			
1865—1868	60.798:563$	117.2 °/o		falling
1871—1875	67.493:630$	102.1 °/o	+10.0 °/o	rising
1876—1885	54.279:087$	94.3 °/o	—10.6 °/o	falling
1886—1889	42.434:489$	79.9 °/o	—22.8 °/o	rising
1890—1892	37.665:623$	53.0 °/o	—11.2 °/o	falling

The value of exports to G. Britain was greatest in 1871-75, and since that period has regularly declined. The average annual value in 1890-1893 shews a shrinkage of 44.1 per cent. compared with 1871-75, in spite of the reduction of English duties on coffee and sugar, and of an increase of the population of the United Kingdom, by more than 29 per cent.!

The duty on coffee in the U. Kingdon is 14/ per cwt. or 1½d. per lb., equivalent to about 23 per cent. on the market value in Brazil for 1894, taking *"1ª Boa and 1ª ordinaria"* as the average quality.

This excessive taxation is undoubtedly the cause of the comparatively insignificant consumption of this product in the U. Kingdom, which is less than that of any other European country, being only ¾ lb. per head per annum, compared with 2¾ lbs. per head in France, 8 lbs. per head in the U. States, 13¼ lbs. in Belgium, 14 lbs. in Denmark, and 21 lbs. per head in Holland!

In compensation the consumption of sugar, which in England pays no duty at all, is far greater than in any other country, being 73.68 lbs. per head per annum compared with only 28.81

lbs. in Germany, and still less in France and Italy, all these sugar producing countries.

It is probable that a reduction of the exaggerated duty on coffee, which, has for years formed part of the English programme of a "free breakfast table," would result in a very considerable increase of consumption, and develope a new and very important market for this popular Brazilian product, at present regarded as a luxury, and virtually excluded from the market by the influence of the duty.

The negotiation of a commercial treaty with G. Britain with concessions as regards the duty on coffee would be highly advantageous to this country, and, if met with similar concessions on this side might not, in view of the declared intention to ultimately abolish all duty on coffee and cocoa, encounter any insuperable difficulty.

The excessive duty on coffee, if it accounts to a certain extent for the absence of any positive increase of exports to Great Britain, does not explain the absolute and continuous decrease that has taken place since 1875, which must be due to other and independent causes, and can only be properly analysed with a full knowledge of all the circumstances. In all probability, the explanation will be found to lie in the fact that apart from the shrinkage in the exportation of sugar, owing to the competition of beetroot, a considerable part of the decrease is due to the growth of the direct importation of Brazilian products by other countries, especially Germany and Austria, that formerly received a great part in the shape of English re-exportations.

Comparison of the British valuation of Brazilian exports with local current prices proves that these valuations, if they err, do so by rather under rating than over rating the value of exports, as will be seen from the following table.

	Coffee exported to Great Britain Kilos	British valuation			Market value in Rio per 10 kilos gold
		£	Rs. gold	Per 10 kilos Rs gold	
1886	9.309:040	493.463	4.336:362$	4$712	4$171
1887	15.314:283	1.096.369	9.692.291$	6$329	6$761
1888	12.921:174	492.555	4.369.700$	3$381	4$901
1889	19.480;931	1.481.031	13.164.385$	6$758	6$297
1890	11.236:699	852.158	7.574.832$	6$741	6$270
			Average...	5$580	5$680

These figures, obtained from a report of the Brazilian Consul in Liverpool published in the 'Diario official,' show that the average English valuation of coffee was actually less than the market prices at Rio for *'1ª boa and 1ª ordinaria'* brands, which may be considered as an average quality, for the same period, even leaving out of consideration the cost of freight, duties, etc.

It may, therefore, be safely concluded that British valuations of Brazilian exports to England in general represent the minimum and not the maximum value due to Brazil on their account, from which have to be deducted the cost of freights and expenses estimated at the rate of 15 per cent. of the European valuations, in order to obtain a fair estimate of this factor of the annual international Credit (activo).

Imports and Exports of Merchandise: France

IMPORTS FROM FRANCE. — The data obtained relative to imports from and exports to France are complete, with the exception of the years 1868, 1875, 1876 and 1880, for which averages derived from five previous years in each case have been struck.

The French Customs divide exports and imports into "Special" and "General". "Special" exports are those of purely local production, whilst the "General" include also re-exportation of all kinds. In the same way "Special" imports are those for local consumption, and "General" include those intended to be re-exported. It is with the "General" imports and exports that we have to deal.

The system of valuation in France and in Belgium is similar, and is thus described by the "Moniteur du Commerce": —

" A distinction is made between the articles subject to *ad* " *valorem* duties and other goods imported or exported. For " articles comprised within the former category the statistics " are compiled according to the values which have served as a " basis for the calculation of the duties. For other articles " a commission fixes the average values without reference " to places of origin or destination. The official values com- " prise the initial price of the goods as well as the transport " and other charges to the frontier, but exclude customs' and " excise duties.

" For the exports the prices are those at the place of produc- " tion increased by all charges up to the point of shipment. "

In consequence of this system of a more or less fixed scale of values, which often remains unaltered for years, the real prices of exports and imports will often not correspond with their official valuation, as will be seen from the table showing the official value of coffee imported by France from 1881-1890.

Imports from France: French Valuation on Quay in France

	AVERAGE ANNUAL VALUE Rs. GOLD	AVERAGE ANNUAL INCREASE	MOVEMENT OF EXCHANGE
1865—1867	25.945 : 500		falling
1869—1875	24.232 : 660	+ 1.2 °/。	rising
1877—1885	27.493 : 750	+ 13.4 °/。	falling
1886—1889	27.991 : 429	+ 1.8 °/。	rising
1890—1893	36.991 : 500	+ 37.9 °/。	falling

The importation of French products by Brazil has been most uniform, with the exception of the period 1890-1893 during which the value of imports from France took a great bound, increasing at the rate of 37.9 per cent., compared with the previous period, a rate even greater than that of the increase of imports from G. Britain for the same period, which was 30 per cent!

The regularity of the demand for French goods, compared with those of other origin, is due to their different character and application. Whilst the imports from France represent a regular demand by the mass of consumers for articles which have become almost indispensable, such as wines, a great part of the value of British imports into Brazil consists of material for construction of railways, etc., the demand for which is capricious, and depends greatly on the development of enterprise, always more or less spasmodic.

Exports to France, French valuation on board at a French port

	Average value	Increase or Decrease
	Rs. gold	
1865—1867	18.250:100	
1869—1875	19.393:820	+ 6.2
1877—1885	30.324:819	+ 75.8
1880—1885	39.264:076	+ 27.8
1886—1889	39.109:747	— 0.1
1890—1893	47.241:750	+ 20.8

The figures relating to exports are not reliable except from 1880 forwards, as there appears to be some doubt as to whether the statistics for previous years, from which they have been derived, represent the special or general values. The leap of 75.8 per cent. in the period 1877-1885 would seem to indicate that this is the fact.

Limiting, for this reason, our observation to the period subsequent to 1880, for which trustworthy data have been available, it will be observed that a notable increase in the value of exports to France by Brazil has occurred, equivalent to an increase of 20.8 per cent. on the average annual value of the preceding ten

years 1880-1889, an increase which is common to nearly all other countries except G. Britain and the Argentine Republic, and accounts to a large extent for the simultaneous increase in the general value of imports.

Comparision of French Valuation of Exports with Market Prices in Rio: —

	COFFEE EXPORTED TO FRANCE	FRENCH VALUATION			MARKET VALUE IN RIO PER 10 KILOS
		Fcs.	EQUIVALENT	PER 10 KILOS	
	Kilos.		Rs. Gold.	Rs. gold	Rs. gold
1881	58.266.625	87.982.604	31.057 : 859	5$330	3$798
1882	40.192.871	65.918.447	23.269 : 211	5$789	2$945
1883	61.297.871	89.373.195	31.649 : 737	5$002	3$321
1884	57.029.549	69.565.070	24.556 : 469	4$341	4$073
1885	58.739.040	68.724.677	24.259 : 81£	4$254	2$930
1886	40.392.049	60.993.000	21.530 : 529	5$340	4$171
1887	39.494.000	81.752.578	28.858 : 660	7$307	6$761
1888	34.326.000	68.531.933	24.190 : 772	6$838	4$901
1889	50.336.512	111.813.657	39.470 : 220	7$836	6$297
1890	42.316.170	97.097.191	34.275 : 208	8$099	7$746
			Average........	6$013	4$704

The average annual French valuation of imported coffee for the ten years, 1881-1890, is Rs.6$013 per 10 kilos, whilst the average market price in Rio for the same period does not exceed 4$704, gold per 10 kilos; deducting 15 per cent. from the French valuations for Brazilian export duties, freight and expenses, the valuation will be reduced to 5$112, which is still 15.1 per cent. higher than the corresponding market value at Rio.

It may therefore be concluded that the French valuation of Brazilian exports is generally excessive, and does not represent the real value receivable by Brazil, and, therefore, that some deduction should be made in order to arrive at a correct estimate of the annual assets (activo) of the country.

Brazilian Imports and Exports: Germany

Of all the statistics collected none are so unsatisfactory as those relating to trade with Germany, except for the period posterior to 1886.

No reliable information has been obtainable relative to the trade between Brazil and German ports other than Hamburg. Consequently, this analysis is incomplete, and has been necessarily confined to the examination of the value of exports and imports for that port alone.

The statistics relating to imports from Hamburg by Brazil are complete from the year 1886 forward, but previous to that date the data presented have been calculated by comparison of the ratio of the value of imports to that of exports in subsequent years, and by comparison of their relative weights.

The German official statistics published relative to imports by Brazil and other S. American countries from Hamburg previous to 1886 give only the weight of the goods shipped and not the value; by comparison of the relative weights of the exports and imports of the period previous to 1886 with those of the later periods an approximate estimate may be gathered of their real value.

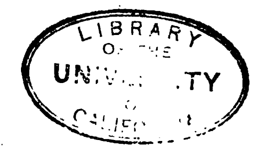
The estimates of value of imports from Hamburg may be considered as correct from 1886 to date.

As regards exports from Brazil to Germany the data obtainable are more satisfactory, no use having been made of averages, for the years previous to 1872.

The absence of satisfactory and sufficient statistics undoubtedly favours the Debit side of Brazilian international engagements, as were they precise the excess of the value of Brazilian produce exported to Germany over that received, or imported from that country, would be still greater; and, consequently, the tendency of any corrections or enlargements of these statistics that may result from fuller and better information, can only be to favour more the already favourable balance of trade between Brazil and Germany, and, consequently, also the general Credit account (activo) of the country in its international relations.

In respect to the system in vogue for valuation of imports and exports in Germany M. Picard states in the "Moniteur officiel du Commerce" (1893) that:—

"It is in Germany that statistics appear to be compiled upon the most reliable basis of valuation. For each article in the cus-



toms classification the average value is fixed annually under the direction of the Imperial Statistical Office by a commission of experts in touch with Chambers of Commerce, leading merchants, etc. The valuation of imports and exports are distinct, and the prices fixed are those of the goods the moment they cross the frontier. In the case of imports neither the customs duties nor expenses of transport, assurance, etc. paid to German commission agents from the frontier to destination are included.

In the case of exports account is taken of all expenses up to the point of shipment, but export duties are excluded as well as drawbacks or bounties on exportation."

This system has the drawback of not taking into sufficient account the oscillation of prices between the annual fixing of the standard values, as also occurs in France and other countries, with the exception of G. Britain, U. States and Portugal.

Official German valuation of Brazilian Trade: —

	EXPORTS BY BRAZIL TO HAMBURG	ANNUAL AVERAGE INCREASE	IMPORTS BY BRAZIL FROM HAMBURG	INCREASE
1870—1875	26.067:600	1.2 °/o		
1876—1885	27.380:042	1.2 °/o		
1886—1889	35.123:040	28.2 °/o	20.394:017	
1890—1893	54.458:220	55.0 °/o	32.830:627	60.9 %

The increase of exports during the period 1890-1893, compared with the previous period, has been at the rate of 55 per cent., exceeding either that of G. Britain or France for the same period, whilst that of exports has also increased 60.9 per cent., or in an almost identical ratio. The ratio of the value of imports from Hamburg to that of exports by Brazil to Hamburg was 58 per cent. in the period 1886-1889, and rose only to 60.2 per cent in 1890-1893, the average annual balance of trade with Hamburg during this period yielding Rs. 21.627;693$ in favour of Brazil, and would be still greater were the whole particulars of the trade included for Bremen and other ports.

The figures relative to Brazilian trade with Germany may, therefore, be accepted as the least favourable estimate of the balance over in favour of Brazil between the two countries.

Comparison of German valuations with Rio prices: —

	WEIGHT OF COFFEE EXPORTED TO HAMBURG	VALUATION HAMBURG	VALUATION PER 10 KILOS	MARKET PRICE RIO 10 KILOS
	kilos	Rs. gold	Rs. gold	Rs. gold
1889	79.042.300	48.067:346	6$000	6$297
1890	51.422.700	39.208:308	7$620	6$746
1891	69.249.900	46.207.288	6$673	5$171
1892	102.111,900	54.388:734	5$326	4$161
1893	88.275.900	52.666:895	5$965	

The German valuation is 114.4 per cent. of the market value in Rio, and deducting 15 per cent. for freight, duties, and expenses, corresponds very nearly with the latter.

Belgium

The data obtainable relative to imports from and exports to Belgium are, previous to 1879, very defective, and a too liberal use has been made of averages to make the result of any great value for basing conclusions. From 1873 to 1879 the annual returns are likewise unsatisfactory, and appear to give the "Special" valuations only, and not the "general". From 1887 to 1891 the statistics are complete, and from them averages have been obtained for the computation of the years 1892-1893.

The only periods for which positive deductions can, therefore, be drawn are those comprised between 1887 to 1889 and 1890 to 1891.

The system of valuation is similar to that employed in France.

Belgian Valuation of Brazilian Trade:—

PERIOD	ANNUAL AVERAGE EXPORTS TO BELGIUM	INCREASE	ANNUAL AVERAGE IMPORTS BY BRAZIL FROM BELGIUM	INCREASE
	Rs. gold		Rs. gold	
1886 - 1889	10.948.648$		15.227:213$	
1890 —1891	14.402:007$	32.4 °/o	23,132.140$	51.9 °/o

In this, as in the preceding cases, a considerable increase of both exports and imports has occurred in 1890-91 compared with the three previous years, but the increase of imports is 19.5 per cent. more than that of exports from Brazil to Belgium.

Comparison of Belgian valuations with Brazilian prices:—

	COFFEE EXPORTED TO BELGIUM	VALUE	EQUIVALENT	PER 10 KILOS	MARKET PRICE IN RIO PER 10 KILOS
	kilos	francs	Rs. gold	Rs. gold	
1888	21.851.000	34.101.000	12.037.653	5$633	4$901
1889	19.955.000	37.919.009	13.365.407	6$707	6$297
1891	20.292.500	39.002.209	13-767.779	6$784	5$171
				19$124	16$369

The average Belg'an valuation of coffee imported from Brazil is, therefore, for the years 1888, 89, 91 at the rate of Rs. 6$875 gold per 10 kilos, whilst the average market price is Rs. 5$456 for the same period; deducting 15 per cent. from the official valuation for freight and expenses the balance Rs. 5$410 will represent the equivalent of the Belgian valuation of exports from Brazil aboard in a Brazilian port, and corresponds very closely with the market price.

Consequently Belgian estimates of the value of imports and exports may be regarded as fairly representing their true chancelling value.

Portugal

The exports and imports to and from Portugal have exhibited more regularity and less oscillations than any other.

The system of valuation is similar to that employed in England. The statistics relative to the imports from and exports to Portugal are complete from 1867 to 1890 with the exception of the years 1883 and 1884, for which averages have been struck, as also for 1891 to 1893.

Portuguese valuation of Brazilian Trade: —

	ANNUAL AVERAGE IMPORTS FROM PORTUGAL	INCREASE AND DECREASE	ANNUAL AVERAGE EXPORTS TO PORTUGAL	INCREASE AND DECREASE
	PORTUGUESE Rs. gold		PORTUGUESE Rs. gold	
1867—1869	5.827:779$		5.844:007$	
1870—1875	7.221:819$	+23.9 °/₀	5.622:650$	— 3.7 °/₀
1876—1885	8.904:948$	+21.9 °/₀	4.391:360$	—21.9 °/₀
1886—1889	8.526:831$	— 4.2 °/₀	3.982:684$	— 9.3 °/₀
1890	10.830:006$	+27.0 °/₀	3.937:843$	— 0.1 °/₀
1890—1892	12.093:638$	+41.8 °/₀	3.993:355$	+ 0.3 °/₀
1893	15.200:419$			

The importation of Portuguese products has increased 46.3 per cent. from the period 1867-1869 to that of 1886-1889. This increase, with the exception of one period of three years (1886-1889) when there was a decrease of 4.2 per cent., being extremely regular, corresponding to the regular demand of an increasing population. The greatest increase is that of the year 1890, imports from Portugal having increased 27 per cent. in that year, in common with all others, compared with the average value of the three previous years.

The situation as regards the exportation of Brazilian produce to Portugal is not so satisfactory, and reveals a steady decrease equivalent to 31.8 per cent. since 1867, and no increase even in the year 1890, but merely a diminished rate of decrease, although this year marks an increase of exports to nearly every other country, except G. Britain.

To such a result, undoubtedly, the differential duties in favour of colonial produce contribute. The total consumption of coffee in Portugal in the year 1890 was 2.340.912 kilos of which only 38.453 kilos were imported direct from Brazil; of the balance 2.284.124 kilos proceeded from the Portuguese colonies, and the rest from various other countries.

The duty recovered on foreign coffee is Rs 0$150 (Portuguese) per kilo, and that on the colonial product only Rs 0$080, or little more than half, and accounts for its greater consumption.

The consumption of coffee in Portugal does not exceed ¼ lb. per head per annum, and appears, according to the customs' returns for 1889, to be even less than in England and in view of the colonial competition, is scarcely worth any special attention.

Austria

Statistics relative to the value of exports and imports to and from Austria are very incomplete and can only be regarded as comparative previous to the year 1833. From that date forward the data are complete to 1893.

Austrian Valuation of Brazilian Trade

	IMPORTS BY BRAZIL ANNUAL AVERAGE	EXPORTS TO BRAZIL ANNUAL AVERAGE
	Rs. gold	Rs. gold
1882 -1885	1.210:526	17.016:091
1886—1889	2.989:809	19.037:749
1890—1893	2.468:864	24.038:369

The value of imports from Austria has always been insignificant but shows a considerable increase in 1886.1889, chiefly in bread-stuffs. If this was not continued in 1890-1893 it was due to the reciprocal treaty with the U. States, that gave a great impulse to the importation of American flour, at the cost of that of other countries.

The value of the average annual exports of Brazilian produce to Austria has increased, since 1883-1885, 40.3 per cent.

The figures relative te the export of Brazilian produce previous to 1893 have been compiled from returns of the port of Trieste only, and, therefore, if made use of at all, must be taken to represent a minimum value subject to corrections, that could only be favourable to the balance of Brazilian trade.



Republica del Uruguay

The statistics relative to the trade between Brazil and the Uruguayan Republic are complete from 1879 to 1894, with the exception of the single year 1876.

Uruguayan Valuation of Brazilian trade 1872-1894

	Annual average value of produce imported by Brazil from Uruguay	Annual average increase	Annual average value of exports from Brazil to Uruguay	Annual average increase or decrease
	Rs. gold	per cent.	Rs. gold	per cent.
1872—1875	3.049:770$		3.556:134$	
1877—1885	6.583:025$ +	105.8	4.114:144$	+ 16.30
1886—1889	7.456:103$ +	32.0	3.890:482$	— 5.4
1890—1894	9.847:193$ +	32.0	3.419:473$	— 12.1
1872	2.766:542$	+450.0	3.512:978$	+ 4.6
1894	15.196:076$		3.676:104$	

The development of the consumption by Brazil of Uruguayan produce has been uninterrupted, the annual average value rising from Rs. 3.049,770$ in 1872 to Rs. 15.196:076$ in 1894, an increase of 450 per cent!

On the other hand, the increase in the consumption by Uruguay of Brazilian produce has been almost inappreciable, having risen only 4.6 per cent., from Rs. 3.556:134$ in 1872 to Rs; 3.676:104$ in 1894, and, with the exception of the increase of 16.3 per cent. in the period 1877 to 1885, always in a diminishing ratio.

This want of reciprocity in the interchange of mutual products must be the result of one of two alternatives; either the consumption of Brazilian produce satisfies the maximum demand for goods of their class, or the competition of similar products imported from other countries intercepts a part of the trade that should, on reciprocal grounds, rightly correspond to Brazil. On the other hand the River Plate countries themselves command a disproportionate share in this market for their own produce, a share that the natural advantages of locality and proximity, as well as of liberal tariffs transform into virtual monopolies.

The following particulars relative to the values of the most important articles of importation and exportation have been extracted from the "Anuario Estatistico de la Republica del Uruguay" for 1893.

BRAZILIAN TRADE WITH URUGUAY IN 1892

	1892			1893		
	VALUE OF EXPORTS TO BRAZIL FROM URUGUAY	TOTAL EXPORTS OF URUGUAY TO ALL COUNTRIES	RATIO OF THE VALUE OF EXPORTS TO BRAZIL TO TOTAL EXPORTS OF URUGUAY	VALUE OF EXPORTS TO BRAZIL FROM URUGUAY	TOTAL EXPORTS OF URUGUAY TO ALL COUNTRIES	RATIO OF THE VALUE OF EXPORTS TO BRAZIL TO TOTAL EXPORTS OF URUGUAY
LIVE STOCK	$ gold	$ gold		$ gold	$ gold	
Cattle	997.318	997.594		567,644	568,034	
Sheep	17.935	61.902		16.403	18,926	
Horses	14.964	17.134		103,390	105.005	
Mules	27.534	37.014		9,120	17,224	
Swine	1.283	1.283		987	1,114	
	$ 1,059.084	$ 1.114:927	94.9 %	$ 697,544	710.303	98.2 %
SALADERO PRODUCTS						
Oil	1.165	1.590		1,168	1,188	100 %
Dried Meat (Tasajo)	3,121.534	4.071:176	76.6	3,610:179	4,826.319	74.8
	$ 4.181.733	5,187:693	80.6 %	$ 4,308:911	$ 5,537,810	80.9 %
CEREALS AND PRODUCE						
Macaroni (fideos)	2.357	9,357	100 %	21,600	21,600	100 %
Hay (alfalfa)	5,100	5,778		23,355	27,546	
Flour (harina)	9.264	9,264	100	428,354	433,027	
Corn (maiz)	15.713	19,153		20,594	23.272	
Fodder (pasto)	7.356	28,272		11,056	20,304	
Wheat (trigo)	13.298	17.324		31,843	114,641	
	$ 53.088	$ 82,148	64.6 %	$ 536,802	640,390	83.8 %
Total of 3 classes	$ 4.234:821	$ 5,269,841	82.9 %	$ 4,845,713	6,178,200	81.0 %

Analysing these returns we find that three of the most important branches of Uruguayan exports are absolutely dependent on Brazilian markets for a sale of their products; which absorbed, in 1892, 82.9 per cent., and in 1893 81.0 per cent. of the whole value exported, a great part of which would not have found a market elsewhere!

Separating the different classes we find that Brazil took nearly the whole of the live stock exported, 94.9 per cent., in 1892, and 98.2 per cent in 1893; of the Xarque (dried meat) exported Brazil took 76.6 per cent. in 1892, and 74.8 per cent. in 1893, which would have been otherwise unsaleable. Of the cereals and their products the Brazilian consumption represented 64.6 per cent. of the exports in 1892, and 83.8 per cent. in 1893.

Part, at least, of this excessive importation might have been easily avoided and substituted by the products of National industry, which only requires sufficient protection to compensate the greater natural advantages enjoyed by the R. Plate in order to successfully compete with their old-time rivals in the production of as much Xarque as the markets now consume.

The departure, in this instance, from the general policy of protection to National industries, in favour of the products of countries that take little in exchange, is peculiarly prejudicial to the interests of the whole important State of Rio Grande; and though intelligible as an indication of a wholesome conversion to free-trade principles, constitute an irritating anomaly under the existing system!

The dried meat or Xarque industry is of vital importance to the State of Rio Grande; on its continuation depends not only the prosperity of the industry itself, but that of the whole State! The abandonment of this industry, which seems not impossible, would be followed by its transfer to the River Plate, which would then have no competitor. Rio Grande cattle, consequently, failing to find a local market, must be sold at whatever price they could obtain in the already over supplied markets of Uruguay. The increased supply of cattle in the Uruguayan markets would lower prices, and possibly the price of Xarque also, though this is not so certain, as the R. Plate producers would then command a monopoly, and by intercombinations could fix the rate of prices as they pleased. Any advantage therefore, that Brazil at large might secure by such a fall in the price of Xarque would be attained only at the cost of an integral part of the country, and of the sacrifice of the State of R. Grande for the benefit of foreigners.

The absolute dependence of the prosperity of the State of

Rio Grande on its pastoral industry, and the degree to which it must be affected by a failure or suspension of the Xarqueadas may be guaged by the following table showing the annual movement of exports for four years.

Total Value of Exports from the State of Rio Grande

	1883-1884	1885-1886	1887-1888	1888-1899
	Rs.	Rs.	Rs.	Rs.
Ox Hides........	6.422:326$	7.309:948$	6.446:530$	5.733:839$
Dried meat, Xarque	5.531:102$	5.018:948$	4.917:772$	8.297:837$
Grease............	597:206$	610:811$	516:845$	461:073$
Tallow...........	837:903$	908:241$	729:491$	629:344$
Horns............	8.890$	93:475$	89:965$	94:073$
Hide cuttings...	39:927$	51:438$	27:396$	24:576$
Tongues..........	127:267$	91:845$	89:096$	106.544$
Neats foot oil...	13:596$	17:428$	19:192$	12:860$
Bones........	16:307$	20:865$	40:720$	49:240$
Tanned hides....	115:320$	120:216$	169:772$	195:519$
Bone ash.........	164:011$	211:881$	179:754$	115:878$
"Saladero Exports"....	13.873:855$	14.454:583$	1.3226:503$	15.720:783$
Other Exports	4:172:763$	3.896:421$	5.036:842$	3.812:523$
Total Exports...	18.046:618$	18.351:004$	18.263:345$	19.533:306$
Saladero Exports	76.8 %	78.8 %	73.4 %	81.3 %

The total value of all exports from the State of Rio Grande including those to other parts of Brazil, for the four years 1883 to 1889 amounted to Rs. 74.194:273$, of which Rs. 57,275:724$ consisted of the products of the Xarqueada industry, equivalent to 77.1 per cent. of the whole.

What, then, would be the prospects of this important State if, by reason of the excessive competition of other more favoured countries this industry, the prop and mainstay of its trade, were to fail?

The continuation and prosperity of the Xarqueada interest has also a deep national and political significance, and may be relied on, when other interests fail, to attach or secure the return of this somewhat arrogant State to the Union. Where, the separatists, if any exist, will explain, is Rio Grande to find a market for its Xarque and cereals, which with their by products constitute 77.1 per cent. of the whole value of exports, except in Brazil?

And how can it expect, or hope, to compete with its inveterate rivals of the River Plate when separation would only still further aggravate the existing difficulties of competition, by destroying the only advantage it yet preserves—the exemption of its products from import duties —so long only as it continues to form an integral part the Republic?

The actual (1894) duty imposed on Xarque imported from the River Plate is only Rs. 0$060 per kilo, and cannot be regarded as sufficient compensation for the natural advantages of better ports and communications, as well as cheaper freights enjoyed by its rivals of the River Plate.

Any increase of the duty on Xarque would only imply a corresponding rise in price, if by that means the demand largely exceeded the quantity that could be supplied by Rio Grande alone, and if the River Plate supply were sensibly affected thereby.

The price of cattle in the R. del Uruguay must fall by the equivalent of the duty, and consequently would realize better prices and be sold in Rio Grande in preference. The Rio Grande Xarqueadas, in consequence, would require to advance prices only sufficient, to compensate the advantages of freights, etc., enjoyed by their competitors, whilst local competition and the production of the River Plate, always in excess of the demand, would be sufficient guarantee against an exorbitant rise of prices.

In this case it appears possible that an increase of duties would really result in the *desideratum* of taxing foreign imports with an inappreciable loss to consumers, whilst the advantages gained would be considerable. In addition to the impulse to an important national industry and the retention of its profits in the country, a considerable gain would be realized by the economy of freights, as the Xarque would be mostly carried in national bottoms, whilst if imported the equivalent would be paid to foreigners.

It is, however, probable that the River Plate would not consent to lose such an important and indispensable market for the products of one of its most important industries without some effort, and would be inclined to make great concessions to preserve it.

If, therefore, a greater degree of reciprocity could be secured by raising the duties on foreign Xarque, and the market for Brazilian exports be thus extended, nothing but benefit can result from the experiment; as, if it fails to secure the object in view, the loss, whatever it may be, will fall much more heavily on the foreign producer than on the home consumer!

Extract from the Anuario Estatistico of Uruguay relative to the chief articles imported from Brazil.

	1892			1893		
	IMPORTS FROM BRAZIL BY R. ORIENTAL	TOTAL EXPORTS TO IMPORTS BY R. ORIENTAL FROM ALL COUNTRIES	RATIO OF THE VALUE OF IMPORTS FROM BRAZIL TO TOTAL FROM ALL COUNTRIES	IMPORTS FROM BRAZIL BY R. ORIENTAL	TOTAL IMPORTS BY R. ORIENTAL FROM ALL COUNTRIES	RATIO OF IMPORTS FROM BRAZIL TO TOTAL IMPORTS FROM ALL COUNTRIES
	$ gold	$ gold	$ gold	$ gold	gold $	%
Spirits of wine......	2.296	135.586	1.6 %	2,096	206.507	
Farinha mandioca..	1.172	1.172	100 %	1.058	1.058	100 %
Pea nuts	2.076	2.076	100 %			
Cocoa.....................	3.721	6.811	54.6 %	3.248	6.505	49.8 %
Coffee..............	184.209	189.098	97.4 %	206.641	219.504	94.1 %
	193.474	334.743	•	213.043	433.574	
Prepared yerba mate..............	708.917	720.684	98.3 %	782.425	797.827	98.2 %
Unprepared do....	3.337	3.337	100 %	119	119	100 %
	712.254	724.021	98.2 %	782.544	797.946	98.0 %
Cigars	3	10.126	0.02 %	4	11.500	0.03 %
Tobacco pichuá	11.171	11.171	100 %	13.974	14.035	
Snuff............	42	2-870	1.4 %		3.257	
Tobacco in leaf	51.061	194.579	25.6 %	41.502	159,219	
Prepared tobacco...	276	7.051	3.9 %	58	10.160	
Do black tobacco ...	121	21	100 %	122	122	100 %
Black tobacco in leaf	104.664	104.664	100 %	78.770	72.082	
Total tobacco	167.338	330.562	50.6 %	135.737	270.375	
Starch.....................	185	31.110	0.5 %	30	29.274	
Sugar	58.913	1.253.400	4.5 %	46.437	1.284.715	4.6 %
Total.....................	11.293.667	2.673.856	42.2 %	1.177.791	2.815.884	41.9 %

The articles that appear to have almost reached their maximum development are farinha de mandioca, of which the whole amount imported proceeds from Brazil, as also oil of the amendoim, herva-matte, 98 per cent. of which is of Brazilian origin, as also is 94 to 97 per cent of the coffee consumed. It is therefore

useless to expect any great development in the consumption of these products, except such as will result from the gradual increase of population, and attention should be concentrated on securing better terms for the following, all of which are largely consumed:

1st. Sugar, the total consumption of which amounts to $ 1.253.400 per annum, of which large sum Brazil only secures 4½ per cent., the principal sources of supply being England, France, Italy and Germany.

2nd. Tobacco and its products, of which the Brazilian share is only 50.6 per cent.

3rd. Almidon or Starch, Brazilian exports being 0.5 per cent.

4th. Cocoa, Brazilian exports 49.8 to 54.6 per cent.

By means of a commercial treaty or of an increase of the duties on Xarque, undoubtedly, the market for these four Brazilian exports might be considerably extended, both in the Uruguay and in Argentina, where precisely the same conditions obtain; but where any concession relative to a reduction of the duty on Sugar is more likely to encounter opposition, on account of protection to the local industry.

The total value of the Brazilian share of all the above ennumerated products, for the years 1882-1883, does not exceed 42 per cent. of the total comsumption.

The same notable increase of imports by Brazil during the period 1890-1894 is observable in relation to Uruguay as to all the previous countries.

Republica Argentina

The statistics relative to Brazilian trade are complete from 1879, with the exception of the years 1882 and 1894.

Argentine valuation of Brazilian trade: —

	ANNUAL AVERAGE IMPORTS FROM BRAZIL BY ARGENTINA	ANNUAL INCREASE	ANNUAL AVERAGE EXPORTS TO BRAZIL BY ARGENTINA	ANNUAL DECREASE
	Rs. gold	%	Rs. gold	%
1879—1885	3.351:484$		4.414:417$	
1886—1889	5.444:881$	+ 62.4	4.308:984$	— 2.4
1890—1894	15.634:443$	+187.0	3.578:714$	—16.9
1879	6.012:830$	+226.6 %	4.083:546	+ 1.5 %
1894	19.642:942$		4.145:741	

Precisely the same causes that have produced the lack of reciprocity in the R. del Uruguay likewise operate in Argentina; and the same remedies indicated to redress this want of equilibrium in Uruguay would, in all probability, produce here still more beneficial results, as the Argentine market is much the more important and can absorb far greater quantities of Brazilian produce. To open out these markets should, therefore, be an object of solicitude to the government.

Comparison between Argentine trade with Brazil in 1889 and 1894.

Argentine produce exported to Brazil.

	1889	1894	Increase	1889	1894	Increase
	kilos	kilos	%	$ gold	$ gold	%
Wheat	4.209.000	475.113.000	+ 11.188	294.685	7.992.099	+ 2612
Dried meat (tassajo)	21.797.000	22.271.000	— 2	3.204.162	2.387.983	— 25
Live stock head	4.152	70.747	+ 1604	71.356	1.191.437	+ 1569
Flour	678.212	32.582.000	+ 4705	103.088	815.116	+ 681
Corn (maiz)	99.987.000	31.358.000	— 68	2.999.025	632.298	— 79
Hay (alfalfa)	17.560.000	39.425.000	— 127	495.686	365.771	— 26
Linseed	826.100	7.958.000	+ 863	47.088	227.007	+ 489
Tallow	214.231	469.000	+ 119	38.562	51.543	+ 33
Butter	4.126	16.754	+ 306	1.618	5.026	+ 210
				367.565	151.146	
				7.522.838	13.869.406	+ 84.3

The increase in consumption of Argentine produce since 1889 is enormous for all exports except Dried Meat (xarque), Corn (milho), and Hay (alfalfa), that of wheat having increased 11.188, flour 4705, and live stock 1604 °/₀.

The increase of their value is not so great owing to the almost uniform fall of prices since 1889, but even so averages 84.3 °/₀ of the whole exports to Brazil. The increase of importation of

Argentine produce is greater than that of any other country for the same period.

Let us now see what Argentina takes in return.

Brazilián produce imported by Argentina: —

	1889	1894	1889	1894	Increase
	KILOS	KILOS	$ GOLD	$ GOLD	o/o
Yerba mate (P. tea)	10.312.920	9.536.364	1.031.292	1.111.455	+ 7.7
Coffee....................	1.599.779	2.172.313	490.998	615.723	+ 25.4
Tobacco..................	1.252.688	265.757	481.583	79.227	— 83.3
Sugar.....................	2.185.311	NIL	354.989	NIL	100 %.
Manioc flour (fariña)	601.437	144.705	(1890) 40.072	7.234	— 78 ,,
			215.379	166.329	— 22.7
			2.614.362	1.960.468	— 25 %.

There has been a regular decline in every class of import, whether estimated by quantity or value with the exception of Yerba which increased 7.7 °/₀ in value consumed, and of Coffee, 25.4 °/₀. The consumption of Brazilian sugar fell from 2.185.311 kilos in 1889 to *nil* in 1894, and that of tobacco from 1.252.688 kilos to only 265.757. The cause of the shrinkage in Brazilian imports is unquestionably the result of protective and prohibitory duties.

To combat this tendency of the Argentine and Oriental Republics Brazil should preserve absolute independence of action as regards its fiscal policy; as it is quite possible that, without raising the prices of articles of prime necessity such as constitute the greater part of Argentine export to Brazil, a renewal of the reciprocity policy with the U. States or some other produce exporting country might induce these Republics to comprehend that Brazil is their best and most advantageous customer, whose good graces it is a vital matter to conciliate.

In 1880 Argentine exports to Brazil represented 3.4 °/₀ of the total to all countries; 6.1 °/₀ in 1889 and 13.7 °/₀ in 1884, being now the third in rank and only less than those of G. Britain and France.

Imports from Brazil represented 5.4 °/₀ of total imports in 1880, 1.6 °/₀ in 1889, and 2.1 % in 1894.

Argentine duties on the importation of Brazilian produce averages 48.8 °/₀ whilst on general imports it is only 28. °/₀.

United States of America

The United States is the best of all customers for Brazilian produce, taking 60 per cent. of the whole exports, whilst supplying comparatively little in exchange.

The statistics relative to this trade are complete from 1883, with the exception of the years 1869, 1873, 1775 and 1878.

No system of valuation of exports and imports could well be worse than that employed in the U. States, but especially for imports, or more calculated to mislead and deceive the incautious.

So defective, indeed, have these valuations become of late years, since the adoption of the M'Kinley tariff and reciprocity, as to completely destroy their value except for experts that possess the special knowledge necessary to detect errors, and sufficient information to correct them !

The annual report of the Bureau of Statistics for 1890 states that—" The values of imported articles in this report are those " which they bore in the markets of the foreign countries from " which they were imported. The act of March 1883, excluded " from the dutiable value the following cost and charges, " which prior to that act had formed a part of the dutiable " value on which valuations are based.

"The cost of transportation, shipment and transhipment with " all the expenses included from the place of growth, production " or manufacture, whether by land or water, to the vessel in " which shipment is made to the U. States; the value of the " usual and necessary sacks, crates, boxes, and covering of any " kind in which the merchandise is contained: commission at " the usual rates, but in no case less than 2½ °/₀, and brokerage, " export duty and all other actual or usual charges for putting " up, preparing, and packing for transportation or shipment."

" Under this system of valuationt he value of imported com- " modities landed on our wharves is less than their actual cost " to the importer by the amount of the above costs and charges " and the cost of freight on the goods from the last foreign port " whence they were shipped to the U. States. The item of freight " from the last foreign port of shipment to the U. States, how- " ever, has never been included in the dutiable value.

" The difference in the methods of valuation of imports should " be considered in any comparison made between the official " values of imports of merchandise for the years prior to July " 1883, and for the years subsequent to that date. The values " shown in the statements both of general and special imports " are mainly values of the commodities prior to appraisement; " that is, the values as shown by the invoices prior to liquidation

" of entries. The foreign export values or those of re-exports is
" the value they bore in the foreign markets, in other words,
" their import value. The value of exports of domestic mer-
" chandise (speciale) is their market value at the time of
" exportation in the ports of the U. States, whence they are
" exported to foreign countries."

In consequence of this peculiar system official valuations do not represent either the true amount payable by the United States to foreign countries on account of imports, which is less than what is really due by the cost of freights, and subsequently to 1883 also by the cost of the charges already enumerated; nor yet the real value receivable by the U. States from other countries on account of exportation of domestic products, which is also less than the true value by the difference between the market values and total cost in the port of shipment, including commissions, brokerage, packing, and shipment expenditure, but not freight, to the foreign country.

Consequently, the discrepancy is greater in the valuation of imported merchandise. Such valuations can be of little value in estimating the excess of exports or imports without first taking these discrepancies into consideration, and making the necessary corrections and additions to the relative values, which would then sensibly modify the favourable balance that exports have exhibited in the United States, especially since 1890.

Mr. Bateman, the representative of the British Board of Trade, at the meeting of the International Statistical Institution at Chicago in 1893 reports that:—"The American system of valuing imports at the port where the goods were shipped, and thus excluding freights, was severely criticized as giving a wrong impression of the value of the imports and thus vitiating the so-called 'balance of trade.' Another serious error in the U. States trade accounts has lately been discovered by Mr. Ford, manager of trade statistics at Washington.

"It appears that *free* imports such as coffee, sugar, etc., from Brazil have been valued at the *par value of their currency,* although this has been much depreciated. By this arrangement the trade with Brazil since the M'Kinley act (and reciprocity) appears nearly *double what it actually is!*"

Statistics compiled in such a fashion must undergo a severe scrutiny before they can be of any practical value.

The following table shows the corrections necessary to reduce the nominal value of the official American valuations of Brazilian exports for 1891-1892 to their real gold equivalent.

According to the returns for 1890 (the last to hand) the importation of Brazilian products in the U. States subject to duties was 3 % of the whole. Three per cent. of Brazilian exports to the

U. States must, therefore, be estimated at its nominal value, which corresponds with the real, and the balance of 97 per cent. reduced to gold at the average current rate of exchange; this, added to the 3 per cent. value of dutiable exports, will then give the real value of the U. States valuation of Brazilian exports. To this must be added 12 per cent., to cover charges from date of purchase to delivery on board, and the total will represent the real international value of Brazilian exports to U. States for 1891 and 1892.

Corrections Requisite for North American Valuations of Brazilian Trade for 1891 and 1892.

	U. States official valuation of imports from Brazil	Deduct value of imports subject to duties 3 o/o	Depreciation Currency	Real value of non dutiable imports 97 % of whole imports, at current rate of exchange	Real Value of imports from Brazil	Add 12 o/o for charges F.O.B.	Nett Value of imports from Brazil
	Rs. gold	Rs. gold	o/o	Rs. gold	Rs. gold	Rs. gold	Rs. gold
1891	152.062:297$	4.561:868$	39.51	89.119:760$	93.621:628$	11.234:595$	109.856:223$
1892	216.743:394$	6.503:307$	55.78	92.969:029$	99.471:336$	11.925:560$	111.395:896$
	368 805:601$	11.065:175$		172.088:789$	193.092:964$	23.160:155$	221.252:119$

For the two years 1891, 1892 the real or nett value of Brazilian exports to U. States, 221.252:119$ represents, therefore, only 60 per cent. of the nominal valuation 368.805:601$ of the U. States department.

The notable decrease in the official valuations of Brazilian exports for 1893, which have fallen from Rs. 216.743:395$ in the

previous year to Rs. 145.308:451$, as also the reduction in the official valuation of coffee from 20 cents to 14 cents per lb., would appear to indicate a return to more correct methods.

The enormous discrepancy, 60 per cent., between the real value and the U. States official valuation of Brazilian imports for these two years shows how little such valuations can be trusted to represent their true international value unless the methods of valuation in each country are thoroughly analyzed, and allowance made for exaggerations, or the reverse!

In estimating the value of imports from the U. States account has been taken of the mode of valuation, and 20 per cent. added to their value, as to that of all other countries, to cover all sorts of charges and freights to a port in Brazil.

The United States Valuation of Brazilian trade from 1866 to 1894 with reduction of the valuations for 1891 and 1892 to a gold basis.

	Average annual valuation of Brazilian imports from U. States	Average Annual increase or decrease	Average annual valuation of Brazilian exports to U. States American valuation	Average Annual increase or decrease	Average annual real value of Brazilian exports to U. States including 12% increase for export duties and charges	Average real increase
	Rs. gold	o/o	Rs. gold	o/o	Rs, gold	o/o
1866—1865	9.630:439$		36.061:045$		36.061:045$	
1871—1872	12.755:923$	+ 32.	65.933:997$	+ 92.8	65.933:907$	+92.8
1879—1885	15.628:637$	+ 22.	88.966:681$	+ 34.9	94.701:601$	+34.9
1886—1889	14.137:397$	— 9.5	95.656:225$	+ 6.9	106.954:897$	+12.9
1890—1893	24.504:273$	+ 73.3	155.658:225$	+ 32.6	124.134:677$	+16.0
1866	9.482.749$	+171.8	30.818:335$		30.818:335$	+261.5
1893	26.000:000$		145.308:451$		162,745.465$	

From the period 1866 to 1893 the importation of American merchandise by Brazil has increased 171.8 per cent., there having been a regular increase with the exception of the period 1886-89. In 1866 imports represented 26.7 per cent. of exports, and in 1893 16.0 per cent.

The increase of imports from 1891 to 1893 was equivalent to 73.3 per cent. compared with the former period, and is usually

attributed wholly to the influence of the treaty of reciprocity that came into operation in 1890. Part, however, of this increase would have probably accrued to the trade with the U. States in any case, in common with that of almost all other countries for this period, the export trade of some of which shows an even greater impulse than that of the U. States itself.

Thus, from 1890	to 1893	the export trade of	Great Britain to Brazil increased	30.0 °/₀
„	„	„	France	37.9 „
„	„	„	Germany	55.9 „
„	„	„	Rep. Oriental	32.0 „
„	„	„	R. Argentina	187.0 „
„	„	„	U. States	73.3 „

Without the assistance of any treaty the export trade of the R. Argentina increased in the same period in a still greater ratio than that of the U. States.

No doubt the reciprocity treaty did, actually, give a decided impulse to American exports to Brazil, that would probably have been greater had better communications and banking facilities existed; but it is an error to attribute the whole of the improvement to this cause.

The American valuations of Brazilian exports to the U. States can be of little value for comparative purposes without the indispensable corrections for the miscalculations of 1891 and 1892, and allowing for the alteration in the method of valuation in 1883.

Even after making the necessary allowance for the miscalculation of 1891 and 1892 and reducing the U. States valuation to its gold equivalent this does not represent the true value; this must he still increased by 12 per cent. to allow for charges of delivery on board, including Brazilian export duties.

Previous to 1883 the system of valuation of imports observed in the U. States was different, and included these charges; consequently, the increase of 12 per cent. in the American valuations is necessary only for the years subsequent to this date.

Analyzing the figures in the column termed 'real average annual increase of exports,' it will be seen that there has been a total increase in 27 years of 428 per cent. from Rs.30.818:335$, in 1866, to Rs.162.705:465$ gold in 1893; whilst the proportion of Brazilian imports to exports has declined from 26.7 per cent. to only 16.0 per cent.

A considerable increase of exports to the U. States is observable in the years 1871-1873, equivalent to 92.8 % and a still further advance in the periods 1879-1885, and 1886 to 1889, whilst the increase in 1890-93, with the reciprocity treaty, was only 16 °/₀!

Comparison of U. States Customs' valuation of coffee with the Rio Janeiro quotations for "1ª Boa to 1ª ordinaria quality."

	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893
American valuation per lb. $...	0.13	0.14	0.13	0.10	0.08	0.09	0.08	0.08	0.11	0.14	0.13	0.13	0.19	0.20	0.14
Equivalent per 10 kilos in Rs. gold	5$230	5$830	5$230	4$020	3$210	3$660	3$210	3$210	4$420	5$830	5$230	5$230	7$653	8$056	
Rio Quotations per 10 kilos Rs. gold	5$461	4$470	3$798	2$945	3$321	4$073	2$930	4$171	6$761	4$901	6$297	6$746	5$171	4$161	
Ratio. American valuation to market prices..	1879	to 1882	=127	5 %;	1883—	1890=	86.7 %;	1890—	1893=	130 %;	1891 &	1892=	168 %		
Consumption per head lbs.........	7.42	8.78	8.25	8.30	8.91	9.26	9.60	9.36	8.53	6.81	9.16	7.83	7.99	9.61	8.24

For the years 1879 to 1882, previous to the alteration in the method of valuation American valuations exceeded the market price in reis by 27.5 per cent., and from 1883 to 1890 were 13.3 per cent. less. From the first 12 per cent. should be deducted for charges F.O.B., when the excess will be reduced to 15.5 per cent. for the first period.

The difference noticeable in 1883 to 1890 is probably due to differences in qualities, but in any case shows that the appraised value of Brazilian exports to the U. States for that period is not excessive.

The American valuations for the period 1890-1893 are 30 per cent. in excess of the Rio quotations, and for the years 1891, 1892, are 68 per cent. in excess, owing to errors in calculation already noticed. The excess of 68 per cent. corresponds very closely with the reduction of 60 per cent. that has been allowed on the value of all exports to the U. States for there two years.

The ratio of the imports from the U. States to the exports from Brazil to that country, 16 per cent. in 1893, displays a great lack of reciprocity in the trade relations of the two count ies, which, however, the late treaty did little to improve, because the principal American products in demand in Brazil are, with few exceptions, produced more cheaply by other countries that successfully compete with the U. States, not only in the foreign but in their own domestic markets, in spite of hostile tariffs and reciprocity treaties.

The only remedy for such a state of things is patience. No doubt as soon as Brazil *can* without injury take a larger quantity of the domestic products of the U. States, its best customer, it will be willing and delighted to do so, but not otherwise.

Exports and Imports of all other Countries

"All other countries" comprise Russia, Holland, Scandinavia and Denmark, Spain, Italy, Asia, Africa and S. America—excepting Argentina, Uruguay and Chile—and British Colonies. The only means of arriving at an approximate estimate of the trade with these countries is by comparing the statistics of the Rio custom house relative to their trade, and then striking an average therefrom.

The statistics available show that the exports to and imports from "all other countries" at the Port of Rio were as follows:

Exports from Rio to	1860-61	1864-65	1865-66	1866-67	1879-80
	Rs.	Rs.	Rs.	Rs.	Rs.
G. Britain, France, U. States, Germany, Belgium, Portugal, Austria, River Plate, and Channel	118.252:723	122.350:600	—	121.100:000	—
All other Countries	9.039:876	18.717:800	—	34.900:000	—
Total	227.292:599	141.068:400	—	156.000:000	—
Percentage of "All other Countries"	4°/o	13°/o	—	22°/o	—
General average for 3 years	16·3°/o	—	—	—	—
Imports at Rio from Great Britain, France, etc.	113.778:017	127.272:701	135.172:500	—	92.362:916
All other Countries	5.528:304	4.321:300	2.917:500	—	2.659:766
Total	119.326:321	131.594:000	131.090:000	—	95.021:682
Percentage of "all other Countries"	4·6°/o	3·3°/o	2.1°/o	—	2·78°/o
General average for....	4 years	3.2°/o	—	—	—

With the object in view of obtaining a maximum estimate of the international debit, or passivo, of the country, and a minimum, rather than maximum estimate of its Credit or Activo, the average annual value of imports from "all other countries" has been raised to 5 °/o in place of 3.2 °/o, and that of Exports reduced from 16.3 to 10 per cent., which, it is believed, will give a fair estimate of their relative values.

Summary of the Foreign Valuations of Brazilian Trade

It has proved impossible in Rio Grande to collect complete statistics relative to the foreign valuations of Brazilian imports and exports for each separate year of the whole thirty-five comprised between 1860 and 1893. Whenever, therefore, the returns for any particular year for any country were wanting an average has been struck from the five preceeding and two successive years.

A considerable use has thus been made of averages previous to 1879 owing to the paucity of available statistics; and this fact, taken in combination with the uncertainty as to whether, the statistics for that period represent in certain cases (France and Belgium) the special or general trade with Brazil, inspires but little confidence in the results, that can only be regarded as useful for comparative purposes.

From 1879 to 1893, however, the statistics of Brazilian trade are almost complete, and very little use has been made of averages. As regards imports by Brazil the following averages have been made use of from 1879–1883: —

G. Britain.........	1	average for the	year		1879
France..............	1	"	"	"	1880
Belgium............	3	"	"	"	1884, 1892, 1893.
Hamburg...... ...	7	"	"	"	1879, 1886.
U. States..........	none	"	"	"	
Portugal............	4	"	"	"	1883-84, 1891, 1893
Austria.............	none	"	"	"	
R. Oriental...	none	"	"	"	
R. Argentina......	1	"	"	"	1882

The only country of first rank, for which it has been necessary to make a somewhat free use of averages, is Germany (Hamburg), owing to the separate destination by countries of German exports to S. America not having been discriminated prior to the year 1887.

The different foreign valuations and averages have then been added together, including 5 per cent. for unspecified countries, and the aggregate value thus obtained augmented by 20 per cent for freights, charges, and foreign profits from the foreign port to delivery on board in Brazil. This gives the total real value of imports from foreign countries for which, according to valuations of foreign customs, Brazil is debtor. The percentage adopted, 20 per cent., may be considered the maximum.

As regards Exports from Brazil the use of averages has been much less, and includes none for Germany, because, although the value of German exports to Brazil have not been discriminated prior to 1887, those of German imports of Brazilian produce have always been so.

The averages made use of are as follows:—

Great Britain.........	1	for 1879
France..................	1	" 1880
Hamburg..............	nil	
Belgium................	3	" 1881, 1884
Austria..................	nil	
Uruguay................	nil	
Argentina..............	4	" 1889, 1882, 1889-90
Portugal................	nil	
U. States...............	nil	

TOTAL .... 19, in 126 valuations.

The few averages made use of and carefully calculated cannot, therefore, seriously prejudice the valuations of Brazilian exports, which may be considered to fairly represent their aggregate foreign valuation.

From the sum of all the different foreign valuations of Brazilian exports, including the 10 per cent. to unspecified countries, and with the exception of the United States, 15 per cent. has been deducted as the equivalent of freights and charges from a Brazilian to a foreign port. In this way the original foreign valuations are reduced to the real nett value due by foreign countries to Brazil on account of exports; freights and charges being deducted because, being almost entirely payable to foreigners resident abroad, they do not constitute part of the real national credit or activo, or of the nett value receivable, although they figure in the foreign valuations as value payable.

To the value thus obtained is finally added the United States valuation of imports from Brazil, for which no deduction is made for freights or expenses, because these valuations, unlike others, are based on the market value in Brazil, and not that on board in the United States.

The resultant grand total represents the real nett value receivable by Brazil on account of its exports.

Local Official Valuations of Imports and Exports

In order to compare local official with foreign valuations both must be reduced to the same standard of value.

Consequently the official valuations in currency have been reduced to their real or gold value at the average rate of exchange for each year. To obtain the real value of exports for which Brazil is creditor the official value reduced to gold has been increased 15 per cent. to cover all expenditure from date of purchase to delivery on board, including duties, storage, packing and loading, but not freights.

With regard to imports the official valuation represents their gold value at the rate of 24d. per mil reis. Consequently, 11.1 per cent. should be deducted from the nominal value to obtain the true gold value of imports. This deduction has not, however, been made because the official valuations are found to correspond very nearly with the foreign, and likewise because no account has been taken of contraband importation, and fraudulent valuations, which, as every one acquainted with the mode of despatching goods in the Brazilian custom houses will admit, must be very considerable.

The official valuations of exports, thus corrected, may then be considered to be a *minimum*, and those of imports a *maximum* valuation, on board in the port of arrival and of shipment, respectively.

Before attempting to compare official Brazilian valuations of exports and imports with foreign valuations it may be of service to transcribe the following remarks of a most competent authority, taken from an article on the 'Comparability of trade Statistics' published in the British Board of Trade Journal for 1893.

"It will be seen, therefore, that there is no uniformity of practice in the compilation of the trade statistics of the various countries, where the greatest divergence exists in the systems in force both of valuing imports and exports, as well as of the determination of the quantities and indication of the places of origin and destination. In some cases the valuation of the goods is based on the customs' declarations, which are more or less subject to scrutiny by the authorities, in others upon the production of invoices, and frequently according to official tables of prices. These latter tables indicate either the average prices for each article enumerated in the tariff without distinction of origin or destination, the different prices for the

article and for the country of production or origin, or the legal value fixed in connexion with the assessment of duty. Again there are differences in the various methods of calculating prices; certain values are absolutely out of date, and it appears to be almost a general rule in the valuation of the goods to take the price they are worth at the frontier, although in some countries the value is taken at the port of shipment.

The determination of the quantities has for a basis, in some cases and some countries, the declarations made to the customs, in others the production of the invoices and bills of lading, or an examination of the goods by the fiscal authorities. It is more particularly in the exports that confusion reigns, with few exceptions the customs are satisfied with declarations which are sometimes widely at variance with the truth. At first sight it would seem that exporters could have very little interest in deceiving the authorities, but that they do so there can be no question; and this is more particularly the case in Germany, Austria and Italy. An arrangement has lately been come to between these countries to assist one another by checking the declarations of the importers by those of the exporters. In the methods of registering imports and exports by country of origin or destination there is an absolute divergence of practice, and in this lies the chief want of agreement between the trade statistics of the various countries.

In many countries only tables showing the general trade are compiled and those that indicate the share of the special trade do not all include the same elements. The classifications, again differ essentially; and this not only renders any attempt at comparison almost impossible, but it is also the cause, where the practice of establishing a valuation on the basis of average prices is in force, of many inaccuracies, the dangers of which are increased when the subdivision of the goods is smallest.

The examples quoted of the divergencies in the practice of recording the import and export statistics on the part of the various countries are sufficient to show how impossible it is to institute any comparison between such statistics. To realize this it is only necessary to take the trade volume of any country and try to reconcile the exports to a given country, as therein recorded, with the import returns of the latter, as shown in their own trade volume. It will be seen at once what enormous discrepancies exist between the export returns of goods of one country with the import returns of the other, not only in quantities but in the value!"

At a meeting of the International Statistical Institute at Chicago in 1893, the following resolutions were adopted with

the hope of introducing some method into the existing chaotic condition of comparative trade statistics.

(*A*) That imports should be valued as they lie at the port of arrival, including freights; and exports at the port of shipment.

(*B*) That the abstract classification proposed for the British Empire is advantageous, and be recommended for adoption.

(*C*) That uniform lists of the principal articles of import and export in each country, to the number of about 50, be prepared and recommended for adoption, so as to admit of international comparison as to their quantity and value.

The local official valuations of Brazilian imports from 1886 to 1888, the latest obtainable, appear to have undergone some metamorphosis. Previous to that date official valuations appear to have corresponded fairly well with foreign valuations, being 96 per cent. of the latter for the period 1865 to 1886, whilst for the years 1886—1888 they show a sudden and inexplicable increase, 20 per cent. in excess of foreign valuations.

Had such an increase of imports really occurred foreign valuations would certainly have shown some indication of a similar increase; and if to this discrepancy be added the inconvenience of a fiscal year of 18 months in 1886—1887, it will be comprehended why the foreign valuations for the period 1886-89 have been preferred, and, reduced to the equivalent of official valuations by an addition to their value of 6 per cent. (the excess of local valuation of imports over the foreign valuation for the period 1879-1888) have been then included amongst official valuations. For the period 1865-1875, during which foreign valuations are admittedly only approximate, official valuations duly corrected were 97 per cent. of those of the foreign valuations as regards exports, and 98 per cent. as regards imports. Official valuations may, therefore, be regarded as sufficiently correct for that period.

During the period 1879 to 1888 official valuations of exports represented 88 per cent. of the foreign valuations, and those of imports 106.5 per cent.

Consequently the official valuation of exports for that period may be regarded as a *minimum*, and that of imports as a *maximum*, the difference being, however, unimportant.

No increase has, therefore, been made in the valuations of exports, as there is every reason to suppose the local official valuation with the necessary additions to be the more correct. The statistics relative to the official valuations of imports from Brazil by the United States show how easily the foreign valuation, often

may be exaggerated, whilst those of France and other countries prove that the valuation is often permanently in excess of the real market value.

Comparison of Official and Foreign Valuations of Brazilian Trade: —

	Corrected local official valuations of exports	Coeff. per capita	Corrected foreign valuation of exports	Coefficient per capita	Corrected local official valuation of imports	Coeff.	Corrected foreign valuation of imports	Coeff.	Ratio of imports to exports: Official	Ratio of imports to exports: Foreign	Ratio of local to foreign valuation: Exports	Ratio of local to foreign valuation: Imports
	Rs. gold	R gold	Rs. gold	Rs. gold	Rs. gold	R. gold	Rs. gold	R. gold	o/o	o/o	o/o	o/o
1861-1864	562.797:447$	17$817			459.108:000$	13$912	....		81.5	.....	104	109
1865-1869	783.937:583$	16$419	801.339:836$	17$927	723.646-000$	16$261	660.382:503$	15$332	98.5	94.1	106	94
1870-1875	1.247.117:691$	20$545	1.177.738:313$	19$403	831.208:000$	15$312	987.446:430$	16$267	74.6	83.4	85.9	97
1876-1885	1.952.565:266$	16$103	2.285.119:277$	18$847	1.739.914:000$	14$349	1.789.845:857$	14$761	91.4	78.5	88	106
1886-1889	913.549:029$	16$460	1.038.123:897$	18$705	814.047:927$	14$667	767.969:753$	13$837	89.1	73.9	88	106
1890-1892	796.601:767$	18$002	900.229:261$	20$044	849.340:435$	19$191	801.170:213$	18$106	106.6	88.5	88	106
1893	291.830:271$	19$073	331.625:308$	21$675	271.564:457$	17$749	256.192:979$	16$744	93.0	77.2		
1861-1893	6.498.402:054$		6.534.195:911$	....	5.788.728:809$	....	5.263.007:715$		89.1	81.9		
1861	138.105:483$	17$050	....	....	123.720:000$	15$276	....		89.6			
1865-1878	2.572.879:829$		2.649.930:211$		2.136.413:000$		2.178.156:980$				97	981
1879-1888	2.084.127:734$		2.351.356:089$	19 half years 18 " "	1.041.820:432$ 1.934.420:000$		1.811.730:452$				88.6	113 106
1879-1886	1.521.593:338$		1.824.937;870$	19 " " 18 " "	1.459.971:356$ 1.378.600:000$		1.431.425:355$ 550.212:602$				88.3	102 96.2
1886-1888	723.382:023$		737.079:466$	7 " " 6 " "	773.375:432$ 662.893:228$		550.212:602$				98	140 120

For these reasons the official valuations have been retained without any addition.

The official valuation of imports has likewise been adopted without any reduction for reasons already given. The difference between it and the foreign valuations is only 6 per cent.; possibly a fuller and more careful examination might prove the official valuation of imports to be excessive.

1865 to 1885

	Foreign Valuations		Official Valuations	
	UNCORRECTED	CORRECTED	UNCORRECTED	CORRECTED
Exports...	4.558.552:889$	4.269.207:429$	4.074.742:000$	3.933.625:000$
Imports...	2.882.395:678$	3.437.657:790$	3.389.808:000$	3.389.808:000$
Balance in favor of Exports...	+676.157:211$	+831.549:639$	+684.934:000$	+543.817:000$

The difference between the corrected and uncorrected foreign customs' valuations of Brazilian exports is 6 per cent., and that for imports 48 per cent. The difference between the uncorrected and corrected local valuations of exports being 4 per cent.

The indispensable corrections of foreign valuations have increased the balance presented by the valuations of foreign customs in favor of exports by 23 per cent., whilst those made in the official local valuation have diminished the nominal balance that they presented by 22 per cent.

It is clear, therefore, that no conclusions based on either foreign or local official valuations of Brazilian trade can be of any great value unless they have undergone a previous and thorough revision and correction; and even then will only approximately represent the true values of exports and imports.

Recapitualating, we find that the differences between foreign and official valuations of Brazilian trade are not so considerable as is generally believed, and that these differences are usually explainable and favour the accuracy of the official valuations, when duly corrected, rather than the foreign valuations.

The difference of 12 per cent. between the foreign and local valuations of exports is the most important, and merits a thorough investigation, in order to determine their exact value more

precisely than has been possible with the meagre materials available in Rio Grande.

The difference, in spite of all corrections, between the local and foreign valuations of Brazilian trade is, however, so considerable as to vitiate the value of any deductions drawn therefrom until the question of the greater accuracy of one or the other is positively settled: and although there are solid reasons for preferring the local valuations, the possibility of error most inevitably produce a feeling of distrust in the conclusions arrived at, and greatly prejudice their value.

The great *desideratum* of every student of national finance and economy must be a thorough and trustworthy compilation of the respective statistics, that, embracing a long period, will afford a safe basis on which to found deductions, without which all conclusions are little better than mere speculations.

That ample material exists for realizing this *desideratum* is certain, and proved by the fact that it has been possible to collect sufficient data for a period extending over 35 years in a small and remote town like Rio Grande, where few records exist for reference, and which, if not absolutely correct, are at least sufficiently so to guard against gross error, and may undoubtedly be rendered perfectly trustworthy by further patient and methodical study and by the organisation of the large mass of official and private records available both in the Capital and abroad.

Importation and Exportation of Bullion

The importation of bullion or specie owes its origin to three causes. It must be the result either of payments on account of merchandise exported, of the investment of foreign capital, or be derived from the funds of travellers or immigrants.

If derived from the sale of exports, the proceeds of foreign loans, or from the capital of the already specified guaranteed and independent foreign companies, its equivalent value has been already taken into account and placed to the international credit (activo), so that if the importation of bullion is to be reckoned with as a factor of international payments, all such imports must be placed to the debit or passivo.

On the other hand, all that part imported by travellers and immigrants is not repayable, and, therefore, will not increase the debit (passivo); and all capital imported for non-specified undertakings and for investment will only increase the debit by the difference between the amount imported and its annual interest and amortisation.

All bullion and securities exported will proportionately increase the credit (activo), excepting the sums carried away by emigrants or travellers.

It has proved impossible to obtain satisfactory statistics relative to the importation aud exportation of bullion, specie, or securities; and for this reason it has been decided to exclude these entirely from the calculation of the international debit and credit. It is certain, however, that could complete statistics be obtained the result would favour the international credit (activo).

In addition to the factors already considered, private remittances on the one side, and private importation of fresh capital on the other, must add greatly to the annual debit and credit of international payments respectively. These are factors the value of which it is impossible to estimate; and they could only be approximately appreciated by a careful comparison of the value of those other factors easily determined with that of bills of exchange drawn for the same period.

Although the aggregate amount annually remitted for private purposes must be very considerable, that imported must be so also, especially if foreign credits for business purposes are

included. Such credits, not being immediately liquidated but carried forward from one year to another, represent a virtual increase of the international credit (activo) and though they increase the ultimate liability of the conntry in regard to foreign creditors, so long as the credits persist (and they are ever being renewed) they practically constitute an advance that is *never liquidated*, and which is ever increasing in value and importance..

These factors, like the importation and exportation of bullion, are undeterminable and, consequently, have been also entirely left out of the calculation of international payments.

Government Expenditure Abroad

The expenditure of the Government abroad varies considerably in the aggregate, but the part purely administrative spent in Europe without any tangible return is insignificant and nearly constant.

The expenditure on account of purchases of all descriptions including arms, ammunition, and even ships, as well as every class of material for construction, coal, and stores, must figure largely amongst the exports of foreign countries to Brazil, and, it is to be presumed, will equally figure as *imports* in the Brazilian valuation of foreign trade, and consequently must not be taken into consideration a second time.

The National Balance Sheets for 1889 and 1891 show the following expenditure payable in London, excluding the interest amortisation and expenses of the foreign debt, which have been already taken into account:

	1889 Rs.	1891 Rs.
Ministry of Interior	79:068$	556:259$
" Justice	19:399$	26:723$
" Exterior	660:649$	1.064:690$
" Marine	532:970$	1.936:656$
" War	911:323$	422:289$
" Finance	397:430$	533:726$
" Agriculture	2.753:750$	6.126:278$
	5.354:589$	10.686:616$
Deduct expenditure to be included as imports	4.654:241$	9,566:558$
Balance of National foreign expenditure exclusive of imported objects and service of loans	700:348$	1.120:058$
Service of internal loans, 1868, 1879, 1889. payable in London	3.868:146$	6.446:598$
Total payable in London	4.568:494$	7.566:656$

The foreign administrative expenditure for 1889 was, therefore, 700:348$, and for 1891 1,120:088$; if, then, the average annual expenditure be estimated at 1,000:000$ for the years prior to 1889, and at the 1,120:000$ for subsequent years, this may be considered to fairly represent the expenditure of the Government, abroad, on this account.

The payment of interest and amortisation of national or internal gold loans will only affect international exchange, except in the manner already described, when payment of the service is effected abroad.

For 1890 the payments in London on account of the service of National Gold Loans were as follows:

National Gold Loan, 1879, Interest and Amortisation................	Rs. 2.876:486$	gold
National Gold Loan, 1889, Interest and Amortisation.....	3.529:578$	„
Commissions.....	40:534$	„
	Rs. 6.446:598$	gold

As it was impossible, in Rio Grande, to obtain precise information as to the payments on this account for each separate year since 1869, the expenditure has been estimated at an annual average of Rs. 2.876:486$ for the years previous to 1890, and at 6.446:598$.

Total Annual International Debit and Credit

(*ACTIVO AND PASSIVO.*)

To determine the annual international credit (activo) and debit (passivo) it is now only necessary to combine the value of the different factors already determined, which may be recapitulated as follows: The Debit or Passivo is composed of :—

1st. The real value of all imported commodities and merchandise on board at the port of arrival.

2nd. All foreign charges, including the interest and amortisation of all foreign loans, whether federal, provincial, or municipal; the interest and dividends of guaranteed and other foreign industrial undertakings, and government administrative expenditure abroad, including the interest and amortisation of the National internal loans held in Europe.

3rd. The profits of foreign capital employed in commercial operations, when remitted abroad, and private remittances of all kinds.

4th. The value of all bullion imported otherwise than for investment or by immigrants and travellers.

The Credit or Activo on the other hand comprises:

1st. The real value of all exports on board at the port of shipment.

2nd. The real value of all foreign capital imported or invested.

3rd. All bullion, securities and values of other kinds exported.

As it has proved impossible to obtain even approximate estimates of the value of commercial and private remittances and of the importation of private capital, as also of the importation and exportation of bullion and securities, these items have been excluded altogether, and the analysis of the causes that affect the value of the currency limited to the other recognized factors, whose action has been already determined.

In these factors of the debit, or passivo, may be added the extraordinary foreign expenditure from 1860 to 1870 on account of the Paraguayan war that has been estimated at Rs. 180,000:000 gold, or about 60 % of the total cost of the war, and has been distributed equally over five years.

When the international credit, or activo, exceeds the debit or passivo the supply of bills must be greater than the demand, and *vice versa*, and international exchange is affected in the following manner:

When the supply of bills is greater than the demand, gold must be imported to make good the difference, exchange will, therefore, rise by the amount necessary to pay the expense of importation to what is called the maximum gold or specie point, at which gold commences to enter the country. In a similar manner when the demand exceeds the supply international exchange falls to the minimum specie point.

The maximum and minimum specie points represent, therefore, the maximum appreciation and depreciation of the currency that can originate from the oscillations of international or real exchange. Any further appreciation or depreciation that the currency may suffer is the result of variations, not of international, but exclusively of nominal exchange or the local value of the currency, and must be considered when that subject comes to be discussed.

In Buenos Aires the expense of shipment of bullion is about $\frac{3}{8}$d. per gold dollar of 47$\frac{5}{8}$d. *par* value, or 0.8%, and the maximum and minimum gold points, irrespective of the rate of discount, is consequently about 48.42d. and 46.82d. respectively. At 48.42d. gold commences to enter the country, and at 46.82d. to leave it.

In Portugal the *par* value of the milreis is 58½d. at the rate of 40 lbs. troy of gold per 1869 sovereigns of 22 carats, equivalent to Rs. 4$500. The expense of shipment and charges amount to 12 per mil, so that the minimum specie point at which gold commences to leave the country is 52$\frac{11}{16}$ pence, and the maximum at which it commences to return 53$\frac{7}{16}$d.

In France the par value of £1 is 25.221 francs. At 25.340 francs, the maximum gold point inclusive of charges, gold enters the country, and leaves at 25.125 francs.

Although in Brazil the two exchanges are not distinguished, but fused in one single quotation, international exchange must be affected in a precisely similar manner; and, calculating the charges for shipment at the same rate as in the River Plate 0.80 %, the maximum specie point will be about 27.21d. irrespective of the rate of discount, and the minimum 26.79 pence.

The appreciation or depreciation due to this cause should, therefore, be subtracted from the market rate, whatever it may be, in order to obtain the local appreciation or depreciation of the currency when international exchange is rising, and added when it is falling.

Combining all the different factors, the value of which have been already determined, we obtain the following annual balance of International payments, which if not precise, because not only are the available statistics deficient, but some factors of importance, such as the importation and exportation of bullion and the value of private remittances, have been left out altogether, is approximate enough to show what must have been the course of international exchange since 1861, and to base conclusions thereon.

Movement of exchange	Period	Balance in favour of the international credit or activo		Balance in favour of the annual international debit or passivo	
		Official valuations	Foreign valuations	Official valuations	Foreign valuations
		gold	gold	gold	gold
High; Rising	1° 1861—1864	+ 86.328:589$			
Falling	2° 1865—1869			—158.555:405$	—27.823:655$
Rising	3° 1870—1875	+ 254.995:778$	+ 129.487:970$		
Falling	4° 1876—1885	+ 5.105:676$	+ 217.725:325$		
Rising	5° 1886—1889	+ 52.852:691$	+ 223.514:706$		
Falling	6° 1890—1892			—187.052:088$	—36.359:482$
	1893		+ 82.702:360$	— 22.464:458$	

If the balance of foreign payments resulting from the 'Official local valuation of imports and exports be compared with that obtained by the use of foreign valuations the results are widely different.

Comparing the course of exchange since 1865, with the balance of international payments when computed with reference to the local and to the foreign customs' valuations of Brazilian trade, great discrepancies are noticeable between one and the other for every one of the five periods for which they have been determined.

In the case of the balances that correspond to the valuations computed from local statistics, duly corrected, it will be found that the course that international exchange must have followed corresponds fairly well in each case with the favourable or unfavourable nature of the balances, exchange rising when they have been indisputably favourable, and *vice-versa*.

On the other hand, the course actually taken by exchange only corresponds with the balances computed from the valuations of foreign customs in four out of five periods; whilst the favourable balance that is shown of 217.725.325$ for the 4th period is absolutely incompatible with the fall in exchange from *par* to 17d. in that period.

In both cases, however, the balances are absolutely unfavourable for the period subsequent to 1890, leaving no manner of doubt that, for this period at least, a great part of the depreciation of the currency and fall of exchange must be attributed to this cause.

The impossibility of reconciling the international balances obtained by use of the foreign customs' valuations of imports and exports with the course of exchange is an additional and powerful reason for giving a decided preference to the local statistics; but, although good reasons may exist for so doing, it cannot be denied that no certainty at all is inspired as to their accurracy, nor can there be any until the precise value of both imports and exports are determined in a regular and methodical manner by the proper authorities. Ample resources exist for the organization of a statistical department, that with time and labour could reduce the mass of diffused *data* to order, and thus secure to the student of the national financial and economical situation trustworthy information and material for scientific investigation.

Adopting, therefore, the balance of international payments obtained from the use of the local valuation of imports and exports, it will be seen that for the first period, 1861-1864, international exchange must have been uniformly favourable, the balance of payments in favour of the country having been 86.328:589$ for

the whole period, and the market rate of exchange have been maintained at a rate about *par*. During the second period, 1865-1869, the balance, which turned against the country, amounted to 155.555:405$ the effect in great part of the Paraguayan war; international exchange fell, and the value of the currency declined from *par* to 14d. In the third period, 1870-1875, the favourable balance amounted to 254.995:778$ and the market rate of exchange rose rapidly to *par* again. In the fourth period, 1879–1885, the balance of international payments was barely favourable, only 5.105:675$; this favourable balance was so exiguous that any trifling addition to the annual debit on account of private remittances or some extraordinaıy expenditure, of which account has not been taken, might have been sufficient to turn it against the country; but, in any case, the origin of the great fall of the market rate of exchange in this period, from *par* to 17½d, must be attributed to the local depreciation of the currency, or nominal exchange, and not to the influence of international payments, that could not have been very unfavourable. In the fifth period 1886-1889 the balance of payments became again decidedly favourable, and the value of the currency rose 17½d. to *par*. In 1890 the balance turned definitely against the country, international exchange became permanently unfavourable, and this, cooperating with other causes that powerfully depreciated the local value of the currency, reduced the market rate from *par* to 10½d. in 1892. In 1893 a partial improvement seems to have taken place by which the unfavourable balance is reduced from an annual average of 62.350:699$ in 1890-92 to 22.464:450$, but is still unfavourable and must, therefore, be exercising a depreciating influence on the value of the currency.

For the periods 1861-1864, 1870-1875, and 1886-1889 during which international exchange must have been generally, if not uniformly, favourable the appreciation of 0d. 21 must be subtracted from the market sight rate of exchange and added for the periods 1865-1869 and 1890 to 1894 to obtain the local depreciation of the currency due to nominal exchange. In the period 1876-1885 no subtraction nor addition will be necessary.

PART II.

Nominal Exchange or the Local Depreciation of the Currency

In order to arrive at a clear conception of the phenomena of nominal exchange it will be well to call to mind some of the principles of Political Economy that are most directly concerned with the value of money and currencies.

Stewart Mill remarks that "there cannot be intrinsically a more insignificant thing in the economy of Society than Money. It is a machine for doing quickly and commodiously what would be done, though less quickly and commodiously, without it; and like other machines it only exerts a distinct and independent influence of its own when it gets out of order."

Money is but a circulating medium for the interchange of commodities, and its value, like that of all other commodities, is determined by its cost of production and considerations of supply and demand.

On this account the value of even metallic money oscillates like that of all other commodities, but as gold and silver are the substances that best combine the necessary conditions of durability, bulk, divisibility, and portability, and whose distribution and cost of production have at the same time preserved the greatest degree of uniformity, these two metals have maintained from time immemorial an universal preference for use as the best circulating medium yet invented, noting, however, a decided tendency to abandon the use of silver as money, in consequence of its greatly increased production and the consequent variations in its value. Metallic money, being a commodity subject to precisely the same laws as any other as regards its production, must clearly equally obey the laws that regulate the price and value of all other commodities. As Mill says "it derives its power as money from a mere convention, and convention alone, therefore, is sufficient to confer this power on any substance," be it bits of stamped metal, or printed paper termed notes, or even sea shells such as constitute the circulating medium in parts of Africa.

Some Economists have maintained that whatever adds to individual wealth must similarly increase the National, but this is

not a necessary consequence, or otherwise the simplest method of augmenting National wealth would be to increase the internal debt.

If, however, bank notes or paper-money of any description cannot increase the wealth of a country, being mere promises to pay, or right to exact an equivalent share of that wealth, they are certainly money so long as they continue to exercise all its functions; and, when the circulating-medium of any country is wholly confined to this class of money, be it convertible or no, it must exercise precisely the same functions, and be ruled by precisely the same laws as those that determine the value of the circulating medium that is wholly metallic. Stewart Mill states that: "The great difficulty, so far, with regard to paper-money has proved to determine its value; that is the general power it possesses for the purchase of commodities," but this difficulty seems to be more the result of the misconception of its true functions, than to any alteration of the nature of money that the fact of its being representative of value, instead of a value itself, introduces.

The circulating medium, whatever may be its nature, is regulated by precisely the same laws of cost of production supply and demand; and there is no reason to believe that because this medium consist of inconvertible paper-money, instead of gold or silver, that these laws then cease to determine its value, or that it does not continue to be the exclusive standard of local values of every kind.

So long as paper-money is convertible at sight, and the credit of the emitting authorities is unimpaired, its value will correspond to that of the metallic money in which it is payable; and its quantity in circulation be controlled by the demand, and can never become excessive, as the moment the supply exceeded the demand it must return on the emittor's hands.

Stewart Mill has shown how a currency originally convertible may by neglect or ignorance, drift into inconvertibility. "Suppose," he says, "that in a country where the issue is wholly metallic an emission of paper-money is made by the Government to the amount of half the metallic currency and in payment of salaries or debts. The circulation being thus increased by one half, prices will in that country rise in proportion, including that of bullion itself. It will then be profitable to melt coin into bullion to compensate the unfavourable exchange that the rise in prices must have caused. The bullion would be then exported and diffused over all the countries, with which the supposed country carried on trade until the equilibrium between imports and exports were restored, which, however, could only occur when by

exportation an amount equivalent to the emission of paper-money had been withdrawn from the circulation, or prices fallen in consequence in that country and risen in others until they again reached the same ratio in all. The only difference, as far as the supposed country is concerned, would be superseded by another half metallic and half paper."

Practically this would not be the true proportion, as a part of the very metallic currency, that must be diffused amongst the co-trading countries to reestablish the ratio of prices, would correspond to, and remain in the emitting country itself, and increase its circulation by so much. There would, therefore, be in addition to any local effect, a fractional and general rise in all prices. "Suppose" Mill continues, "that a new emission of paper-money take place; the same series of phenomena would recur, and so on consecutively until the whole metallic currency had been driven out of the country."

When, however, the metallic currency had been entirely superseded by an equal amount of paper-money, and the former almost entirely driven from the country, and prices returned to their original ratio in all countries, the situation though dangerous would be not untenable so long as foreign exchanges continued favourable, and no demand for bullion for export arose, whilst the credit of the emitting authority also remained unimpaired.

If, however, at this juncture foreign exchanges turned against the country an immediate demand for gold must arise, with which to satisfy the international balance due abroad, that it would be impossible to satisfy. There being no gold, this deficit must be made good by the exportation of commodities, and the demand for exports exceeding the supply their prices must rise in that country, but not abroad, simultaneously and equally with that of bullion itself, and would be followed by those of imports and other commodities though in a less degree, and more slowly; and thus the paper-money previously nominally convertible might become *de facto* inconvertible without any addition at all having been made to the original volume of the currency.

The failure to recognize the influence that international exchange, or the character of the balance of international payments, exercises on the value of the currency has lead to the gravest errors of both appreciation and practice since Law first evolved his scheme of enriching Humanity by unlimited emissions of paper-money.

In the "Manual de Economia Politica" of Dr. P. A. Albuquerque, professor of the faculty of law in the University of Pernambuco, will be found the following typical illustration:

"As it is in the power of the Government, whilst preserving the same number of metallic monetary units, to reduce the weight of its gold and silver coinage, without this debased money lowering its original value, so long as the monetary units of the debased coinage correspond to the necessities of the circulation, it can likewise substitute copper or paper-money for that of gold or silver, so long as the same number of monetary units are preserved. Paper-money is an artificial money, the value of which is derived exclusively from its utility as an instrument of exchange and from the limitation of its quantity, which depends on the will of the Government, since it alone possesses the right of emission. This explains why paper, the intrinsic value of which is vastly inferior to that of the precious metals, can, when converted into money attain the same value as gold or silver, and exercise the same functions as these metals as regards the exchange of commodities, being even preferable. Paper–money, even when inconvertible, so long as its quantity is in proportion to the necessities of commerce, will maintain its nominal value and only by excess of emission can become completely depreciated."

With Dr. Alburquerque's conclusion we perfectly agree, but not with the reasoning by which he arrives at it.

The rigidity of the circulation entailed by a regimen of inconvertible currency is precisely the reason of the oscillations of its value. Were the supply always precisely proportioned to the demand by the withdrawal of part from circulation whenever it gave signs of being excessive, as is done in France, no depreciation, further than might be operated by the transitory influence of speculation or similar causes, would be possible; but it is beyond the power of any government or emitting authority whatsoever to maintain at an uniform value a fixed quantity of inconvertible paper-money, or what Dr. Albuquerque terms "the same number of monetary units," irrespective of the alterations in the demand that variations in the volume of local and the balance of international payments determines.

In a country in which development of every kind had already attained its maximum, and where there was no foreign commerce whatever, or where international payments were exactly balanced the equilibrium of the demand and supply of the circulating medium thus realized might maintain an inconvertible currency of invariable quantity at a fixed value. Such conditions are, however, impossible, and, otherwise, directly the balance of international payments became unfavourable, and could not be liquidated by the exportation of merchandise, the nominal value conferred on the debased currency, that Sr. Albuquerque supposes to have been issued, must disappear. To make good the international

deficit, gold must be exported at its real, and not its nominal value. Consequently, the price of bullion must rise and affect those of other commodities, and the conventional value of the debased metallic gold currency be altered although no change has occurred in its quantity or in the number of the monetary units in circulation.

Most, if not all emissions of paper money were originally either actually convertible into specie at sight, or, at least, were first issued with some intention or pretence of conversion at some future date.

Abuse of this self assumed function of government has been invariably the cause that has led to inconvertibility, and not any pretended advantage or preference for depreciated or debased currencies; whilst the origin of this intolerable nuisance is to be traced to the ignorance, neglect or contempt of constituted authority for those natural laws that regulate the social relations of men. The investigation of these laws is the proper function of Political Economy in common with the other social sciences, and some knowledge of their action should, it would be thought, surely be made at least one of the indispensable qualifications of any one aspiring to the title of Statesman, or to direct the destinies of a Nation.

A very elementary acquaintance with the true principles of Political Economy would have saved much trouble and confusion, and have prevented the species of 'transmutation of metals,' that Sr. Albuquerque considers possible, from ever passing from the realms of theory to those of practice.

Whether the debased currency be metallic or paper the influence exercised on it by an adverse balance of trade will be precisely similar. The only difference will be that in the first case the currency itself will be exported as bullion, and thus diminish its volume, whilst in the second, the volume of the paper-money in circulation will remain unaltered.

The exportation of part of the debased coinage will raise the value of the remainder until this increase may compensate the rise in the price of bullion and the depreciation due to this cause. If, then, exchange remain unfavourable the value of the currency will not correspond with the price of gold; that is, gold would exchange for a greater quantity of debased currency than for the commodities that could be purchased therewith, a *reductio a dabsurdum*, from which we can only conclude that the value of the currency is not determined by the price of gold, as generally supposed, but by the ratio between the general demand for the circulating medium and its supply.

When as has been already shown, the currency consists wholly

of inconvertible paper-money and there is no gold for export merchandise must take its place. So long, then, as the demand for exports (in which bullion is included) exceeds the supply their price must continue to rise. This will not, however, determine the *value* or general purchasing power of the currency, but only the *price* of exports estimated in paper-money, the only local standard. Its *value* must he determined by the proportion of the general demand for the circulating medium, that is the aggregate value of all operations of exchange, to its supply or quantity in circulation.

Neither the rise in the price of a single commodity, such as gold, although it be the medium of foreign exchange, nor even that of all exportable commodities can affect the value of the currency in the exact proportion of the depreciation as regards that particular commodity, but only in that of the aggregate depreciation of all values. Thus, if for illustration, we suppose that all operations of exchange or marketable values are represented by 100, of which gold and exports comprise 50, then, if the unfavourable balance of foreign payments determine a rise in the price of gold and exports equivalent to 100 per cent., whilst the other values remain constant at 50, the same quantity of currency will only suffice to purchase 25 of Gold and Exports. The general depreciation of the currency, however, will not be in the ratio of 50:25 which is only its depreciation with regard to those particular commodities, but in the ratio of 100:25.

If the prices of all commodities, services and values rise equally and simultaneously with those of gold and exports the general depreciation of the currency would coincide always with the depreciation in relation to gold and exports; but it has been shown, and indeed requires no demonstration, that prices *do not rise* uniformly, some indeed never rising at all, in consequence of the appreciation of gold and other exports.

The value of the currency, therefore, depends on the ratio of the general demand for the circulating medium to the supply, whilst the price of gold and other exports is determined, like that of all commodities, by the cost of production, supply, and demand.

If, as is generally believed the value of the currency were determined solely by the proportion of the stock of gold to the paper-money in circulation, as long as international exchange were favourable and, therefore, gold was being imported and its stock increased, the value of the currency ought to improve uninterruptedly, the contrary being the case when international exchange fell.

Such, however, is not the case, as the record of the course of

exchange and the premium on gold in Buenos Aires plainly indicates. During the year 1895 the oscillations of one and the other were as follows:

	International exchange	Premium on gold	Value of the currency
	pence		pence
January..............	48¼ to 48⅜	250 to 260 %	16¼ to 15
February...	48 — 48⅝	245 — 260 "	15 — 15½
March................	48½ — 48	247 — 255 "	14¾ — 15½
April.................	48⅝ — 48½	253 — 275 "	15¾ — 15½
May..................	47¾ — 47½	248 — 278 "	15 — 15½
June.................	47¾ — 47¾	240 — 254 "	15½ — 14¼
July..................	47⅞ — 47⅞	240 — 252 "	14¾ — 14¼
August..............	48⅛ — 48¼	232 — 239 "	14 — 13½
September..........	48 — 48⅛	214 — 230 "	13¼ — 13¾
October.........	48 — 48¼	219 — 234 "	13¾ — 14¾
November...........	48 — 48¼	229 — 238 "	15 — 14¼
December...........	48⅜ — 48½	229 — 235 "	14¼ — 14¾

The *par* value of a peso (dollar) gold is 47⅝ d.

With the exception of the single month of May, foreign international exchange was uniformly favourable, but, notwithstanding, the value of the currency fell from 16¼ to 14¼ pence, or more than 12 per cent., the fall being, precisely, most marked when international exchange was most favourable!

Similar discrepancies to those noticed in Buenos Aires between the tendency of international exchange and the market value of the currency will be observed to have taken place in Italy under similar conditions. The following tables and criticism are obtained from a brochure by Sr. Rodriguez de Freitas:—

"This Nation (Italy) lived for many years under a paper-money regime, let us see, therefore, how it purchased money in Paris. The following table, which we have compiled from numerous

market quotations of exchange, will show. It is well to know that the Italian money is the lira, and is equivalent to a franc. The quotations between France and Italy are, therefore, in percentages. There were, however, two prices quoted; one if the bills were payable in gold, the other if payable in paper. In some of the following quotations the letters p and l indicate respectively *profit* or *loss* :

		Quotations	
		In paper	*In gold*
31st December	1874	$9\frac{7}{8}$ to $9\frac{5}{8}$	$\frac{1}{4}$ to $\frac{1}{2}$
1st April	1875	$8\frac{1}{4}$ — $7\frac{3}{4}$	$\frac{1}{4}$ — $\frac{1}{2}$
3rd June	"	$6\frac{1}{4}$ — $6\frac{1}{8}$	$\frac{1}{4}$ — $\frac{1}{8}$
23rd December	"	8 — $7\frac{3}{4}$	$\frac{1}{8}$ — $\frac{1}{4}$
30th December	"	$7\frac{3}{4}$ — 8	$\frac{1}{8}$ — $\frac{1}{4}$
30th March	1876	$8\frac{1}{8}$ — $7\frac{7}{8}$	$\frac{3}{8}$ — $\frac{1}{4}$
7th September	"	$7\frac{1}{8}$ — $7\frac{3}{8}$	$\frac{1}{8}$ — $\frac{3}{8}$
28th October	1880	$9\frac{1}{4}$ — $9\frac{1}{2}$	$\frac{1}{4}$ — par
4th November	"	$7\frac{3}{4}$ — $7\frac{1}{2}$	$\frac{1}{8}l$ — $\frac{1}{8}p$
2nd December	"	$3\frac{1}{4}$ — $2\frac{3}{4}$	$\frac{1}{8}l$ — $\frac{1}{8}p$
23rd December	"	2 — $2\frac{1}{8}$	$\frac{1}{8}l$ — $\frac{1}{8}p$
19th January	1882	3 — $3\frac{1}{2}$	par — $\frac{1}{2}l$
26th January	"	5 — $5\frac{1}{2}$	$\frac{1}{4}l$ — $\frac{1}{2}l$
17th April	"	$2\frac{5}{8}$ — $2\frac{3}{8}$	par — $\frac{1}{4}p$

We here observe clearly the difference between the paper and metallic currencies. Exchange in gold varied between the most narrow limits, whilst exchange in paper varied from 2 to nearly 10 %. Besides this, during November and December of 1880 the quotation of gold exchange did not vary, whilst that in paper varied 5 per cent. The greater the prospect of the Treasury redeeming a large quantity of its paper money, the more the two species of prices tended to assimilate."

All the confusion of ideas that envelopes the subject of the value of inconvertible currencies appears to originate in the initial error of refusing to paper money, the same functions exercised by any other kind of currency.

The circulating medium of any country, whatever it be, whether gold, silver, or wampum, must, so long as it exercises the functions of money to the exclusion of other descriptions, be the sole standard of value in that country. By this standard all prices must be correlated, whether of gold, exports, or other values, and not by an imaginary gold standard, and must be determined in each particular case by the demand and supply, and cost of production of each one.

If then it be admitted that the local circulating medium is the true standard, and that the price of gold must be determined in terms of that standard, like that of any other commodity, and the local value of the currency thus reduced to its international equivalent, what advantage can there be in attempting to impose a second standard of value by which to measure the local standard, or to pretend that, contrary to experience, the value of inconvertible currencies is controlled by the price of gold in place of the ordinary factors of supply and demand that rule others.

Moreover, it is impossible to explain in any other manner many of the paradoxes of inconvertible currency, notably that of the differential rise of prices, that is recognized to confer such indisputable advantages on production in silver-using countries, and constitutes the main argument in favour of Bimetalism.

Theory of Exchange

The whole theory of the equilibrium of exchange or of the value of the currency is, in fact, comprised in the single rule that the VALUE OF THE CURRENCY IS THE RATIO OF THE DEMAND to the SUPPLY:

If then V and *v'* represent the value of the currency at different dates.
S and s' represent the supply, or amount in circulation.
D and d' represent the demand.
then $v' = \frac{Vd'S}{Ds'}$

To obtain the market value of exchange, or the nett value of the currency, the appreciation or depreciation, whichever the case may be, created by international exchange must be subtracted or added respectively from the values V and *v'*, thus determined.

Stuart Mill, in his manual of Political Economy states that the value of the currency is in inverse ratio to its quantity. This, however, is only true when the demand itself remains constant; and is, consequently inapplicable for the determination of values for dates separated by considerable intervals during which the demand has had time to undergo considerable changes, as it is clear that the same amount of currency that at one time may be ample to meet all demands, may at another be excessive or insufficient, owing for example to a simple increase or decrease of population. Why and how the local value of currencies, whether metallic or otherwise, must vary in inverse ratio to the supply, so long as the demand remain constant, will be best understood by an illustration.

Supposing that in a country with absolutely no foreign trade or communications of any kind the currency were suddenly doubled by a Government issue, no change having taken place meanwhile in either consumption, production, or population. The demand for currency with which to effect the usual operations of local exchange will (if we neglect the purely transitory effects of speculation that such an increase of the circulating medium must give rise to) have remained unaltered, whilst the supply of

money, the medium by which one satisfies the other, has been doubled. The same operations must, therefore, continue to be effected as formerly, but with double the amount of money; and, consequently, a general rise in prices must occur in proportion to the increase of the currency. By suddenly increasing the volume of the currency, the supply has been doubled, whilst the demand has remained the same; consequently, either more money must be paid for the same objects than formerly, or part of the currency must remain idle and return on the hands of the emitting authorities.

For this reason an emission of convertible notes can never be excessive, because the moment it tends to become so they are presented for conversion, and disappear from circulation.

So long, therefore, as the issue of paper-money correspond exactly to the demand there can be no depreciation. The difficulty is to recognize what the precise value of the demand amounts to, and thereby regulate the supply.

The demand for the circulating medium is not, as is often imagined, a normal quantity that varies only with the increase or decrease of population, but is likewise powerfully influenced by two other factors, the variations in the volume of local and of foreign exchanges or trade.

To the failure to recognize the direct influence on the demand exercised by the variations of international payments is to be attributed the grave error, already referred to, that assumes the depreciation of the currency to be impossible so long as its quantity is proportioned to the increase of population.

The demand for the circulating medium is, moreover, largely dependent on the state of purely local business, and may be active and vigorous whilst the demand determined by the balance of international payments is simultaneously weak or falling. This purely local demand is an ever varying quantity, influenced by changes in the population, of habits and customs, and by speculation, and the animation of local business. That the changes of this purely local demand for money exercise a great influence on the value of the currency is well illustrated by a phenomenon of regular occurrence in Buenos Aires. At certain periods of the year, during the wool crop and harvest, there is a greatly increased demand for money, discounts rise, the banks are depleted, and the premium on gold is observed to drop. Sometimes foreign exchanges are simultaneously favourable and sometimes unfavourable, but, however they may be, the price of gold almost invariably *falls*, and the value of the currency increases. Unless this were the effect of the increased demand on a constant supply the premium on gold must have fallen

when the foreign exchanges were favourable, and *vice versa*. When the harvest is over and money begins to flow into the banks again the premium on gold shows an invariable tendency to rise again. Of course there may be other simultaneous influences at work to interfere with this process, but such is the general tendency observed for a sufficiently long period to warrant conclusions.

This phenomenon has usually been attributed to the periodic importation of gold for purchase of produce with the object of creating a fall, and thus buying in a cheaper paper market; but this could be of no advantage to buyers of produce, as what they gained by buying at a lower paper rate they would lose by selling their gold for less paper. As, also, the gold imported must be paid for, if its quantity corresponded to the value of the produce purchased the supply of bills would be greatly reduced and international exchange fall off, or else bullion be re-shipped in large quantities. Neither in fact takes place; and both in 1894 and 1895 foreign exchange has remained almost uniformly favourable, whilst the shipments of bullion have never been extraordinary.

In countries that possess a metallic currency its value is likewise regulated by the variations of local demand, or would be were not an automatic method of adjustment provided in the comparative rates of discounts, which secure the exportation of any excess in the supply to other countries where it is insufficient. When the currency consists wholly of inconvertible paper this is impossible, and an excessive demand, so long as the supply remain the same, can only affect it by raising its value.

The demand for currency has been described as constituted by the total volume of exchanges effected. This may for convenience be separated into three categories.

1st. The local "normal demand" dependent on the variation of population.

2nd. The local "business demand" that varies with the volume of business payments.

3rd. The "international demand" that is determined by the nature of international balances.

Allowing for the maximum and minimum appreciation caused by the state of international exchange, already described, nominal exchange will be at *par* when the sum of these three demands precisely balances the supply, at a discount when they are less, and *vice-versa*.

The first or "normal" local demand, supposing the average individual volume of exchanges to remain the same, as also the

supply of currency, must evidently increase in the ratio of the growth of population to the quantity of currency in circulation, and the value of the currency be proportionately raised.

The second class of demand depends on the volume of local business, exclusive of that necessary to satisfy the ordinary necessities of the population, and is controlled by a multitude of indeterminable factors and influenced very powerfully by speculation amongst others. The third and last is determined by the favourable or unfavourable nature of international exchange. When it is favourable more is imported than exported (including bullion and securities, etc.), the demand for the circulating medium increases, and the value of the currency rises, and *vice-versa*.

The local demand for currency for business purposes varies extremely in the same place at different periods, and even on different days. It is the variation in this demand that determines the quantity of money required in each country, which is influenced by the habits and customs, state of credit, and methods of transacting business in each, and maintains a constant circulation of money between different countries.

The following table compiled by the Director of the U. States Mint shows the quantity of money current in various countries.

France......	francs	202	=	Rs.	71$306	gold	per capita
Cuba.........	"	155	=	"	54$715	"	"
Holland	"	143	=	"	46$949	"	"
Belgium....	"	127	=	"	45$831	"	"
U. States...	"	122	=	"	43$066	"	"
England....	"	67	=	"	23$651	"	"
Russia	"	35	=	"	12$355	"	"

The extraordinary variations in the quantity of money requisite for each country, France for example, with an almost similar population and far smaller volume of business, requiring three times as much as England, show that it depends more on the idiosyncracies of each than on any fixed general principle.

How the quantity of money (legal-tender) requisite may vary at different times, even in the same country, and be modified by custom is shown by the insignificant coefficient that corresponds to England since the almost universal substitution of payment by cheque, which has reduced the necessity of the actual transfer of money to a minimum. The Bankers' Clearing House in London, for example, liquidated in one year payments to the amount of £6.478.013.000 without the use of any money at all.

To attempt to determine whether the amount of currency in circulation in Brazil is, sufficient or no, by comparison with that

of other countries is, consequently, useless; this can only be recognized by observation and comparison of the effects of the demand upon the supply. If insufficient it will quickly prove itself so by a rise in value.

So long as the rate of exchange is below *par* value (27d.), as the supply and demand must necessarily be in equilibrium, the supply will be represented by the amount of paper money in circulation, and the demand by its real or metallic value, or by their coefficients respectively, allowing for the appreciation or depreciation due to international exchange.

When exchange is above *par*, as in 1889, allowing in a similar manner for the effect of international exchange, the real value of the currency will no longer necessarily coincide with and represent the demand, because when *par* is reached the demand, although it may go on increasing, cannot raise the value of the currency proportionately, as its maximum is fixed by that of gold coin, also a legal tender.

To determine the total demand at any moment is, therefore, a simple matter; the difficulty is to discriminate exactly the proportion that corresponds to each of the three factors, population, which determines the "normal demand," business transactions, and international payments. The first and last are possible to calculate, but the demand that originates in business transactions and speculation, etc., is quite undeterminable except by subtracting from the total demand the sum of the first two.

During the first period, 1861-1864, the amount of currency actually in circulation was Rs. 10$344 per capita, and international exchange being favourable its nominal and real values coincided. As it is unavoidable to start without some assumption, it may be fairly presumed that the minimum demand for the circulating medium was certainly not less than Rs. 11$000 per capita during that period, because when exchange reaches *par* its real value no longer represents the true demand, but is somewhat less.

Starting, therefore, with the assumption that the demand for currency was 11$000 per head in 1861-64 with exchange at *par*, it is possible, presuming the demand to have remained constant, to determine the depreciation of the local value of the currency for different periods, by application of the rule that the value of the currency is in inverse ratio to its coefficients per capita.

Thus for the second period the equation would be, when the quantity in circulation was 14$419 per head: —

27d : v :: 14$419 : 11$000 = 20.59 pence

and the depreciation corresponding to excessive emission 6d.41

or 24 per cent. The coefficient of the real value of the currency, or of the total demand, was, however, 21d. 31., equivalent to depreciation of only 5d. 69 or 21 per cent., and, consequently, the demand must have exceeded 11$000 per capita, either on account of an increase produced by a favourable balance of international payments, or by a positive increase in the local demand itself.

The balance of foreign payments was, however, not only not favourable, but so unfavourable as to actually reduce the demand by the equivalent of Rs. 3$704 per capita, the coefficient of the unfavourable balance; so that the theoretical demand of 11$000 must have been thereby reduced to 7$296, unless the difference between this and the total demand of 11$057 had been compensated by a positive increase in other local demand equivalent to Rs. 3$761; the total local demand, consequently, would then be represented by Rs. 14$761, in lieu of 11$000.

To find the value of the coefficient of the total local demand, the value of the 'international' demand, or that consequent on the balance of international payments, must be added to the coefficient of real value, or total demand, when the balance of international payments is favourable, and deducted when it is unfavourable.

Thus for the period 1865-1869, the coefficient of real value, or total demand, was 11$057, and that of 'international' demand 3$704 against the credit or activo, then:—

11$057+3$704=14$761 or local demand per capita.

In the same manner the 'local' and 'international' demands for the currency may be determined for other periods with the results shown in the following table.

With sufficient and correct statistics it would be possible to determine the value of both the "normal" demand, that depends on population, and of the "international" demand that results from the variations of foreign payments. The third factor or "business" demand, however, is practically undeterminable, and varies from day to day. The only means of arriving at an appreciation of the manner in which the variations of this factor of the total demand have affected the value of the currency is by comparison of the demand constituted by the first two factors with the total demand, that is represented by the real or gold value of the currency.

In a similar manner the only method of recognizing the variations that are actually taking place in this demand and its influence on the currency is by careful observation of the other two, and of the accumulations of deposits in the Banks and the comparative rate of discounts.

	SUPPLY COEFFICIENT OF PAPER MONEY IN CIRCULATION	DEMAND COEFFICIENT OF REAL VALUE	AVERAGE ANNUAL RATE OF EXCHANGE	AVERAGE POPULATION	"NORMAL" OR THEORETICAL LOCAL DEMAND ON BASIS OF POPULATION ONLY	DEPRECIATION DUE TO EXCESSIVE EMISSION ON BASIS OF POPULATION	INTERNATIONAL DEMAND	EQUIVALENT DEPRECIATION OR APPRECIATION	OTHER OR "BUSINESS" DEMAND	DEPRECIATION OR APPRECIATION OF EXCHANGE CREATED BY 'BUSINESS' DEMAND.	TOTAL LOCAL DEMAND
	Rs.	gold Rs.	pence	1000	Rs.	pence	Rs.	pence	Rs.	pence	Rs.
1861 - 1864	10$541	10$203	27	8.250	11$000	nil		nil			11$000
1865—1869	14$419	11$057	21.31	8.940	11$000	— 6.419	— 3$704	— 6.9	+ 3$761	+ 7.6	14$761
1870—1875	18$554	16$961	24.30	10.117	11$000	— 11.0	+ 3$474	+ 5.5	+ 2$437	+ 2.84	13$487
1876—1885	16$951	13$987	22.27	12.125	11$000	— 9.42	nil	nil	2$987	+ 4.69	13$987
1886—1889	14$773	12$955	24.25	13.875	11$000	— 6.93	+ 0$990	+ 1.7	0$965	+ 2.7	11$965
1890—1892	34$387	21$487	17.0	14.750	11$000	— 18.4	— 4$095	— 3.2	14$582	+ 11.6	25$582
1893	41$282	18$009	10.0	15.300	11$000	— 19.8	— 2$401	— 1.5	9$409	+ 4.3	20$409

If, for example, it is found that international exchange is indisputably favourable, the banks replete with deposits, and discounts low, whilst exchange continues to fall, it can only be concluded that this is the result of a falling off in the "business" demand, that may originate in a multitude of causes. The approximate determination or resolution of the total demand for the circulating medium in this manner can be of little practical value, and is useful merely to show how the variations of the most oscillating factor of the local demand, that for business transactions which is generally neglected altogether, has exercised, and must continue to exercise, a dominating influence on the value of the currency.

Analyzing the table on page 135 it is evident that, even without taking into account the demand for bills for private remittances, the balance of international payments must have been absolutely unfavourable for two periods at least of the three during which exchange was falling, Nos. 2 and 6; whilst the favourable balance of the period 1876-1885 was so exiguous that the slightest demand an the part of private remittances must have turned it against the country.

It is, therefore, unnecessary to search for extraordinary causes to explain the origin of the fall of exchange for these periods, that was clearly the result of excessive imports and foreign charges, and must have occurred even had no private remittances been made at all; though, of course, it would not in this case have been so violent.

Starting with the theoretical demand for Rs. 11$000 per capita in 1861-1864 it will be found from the respective column in the table on the preceding page that the local demand must have increased considerably during the next period, as, otherwise, in view of a simultaneous depreciation of 6.4 pence in the nominal value of the currency, and of 6.9 pence due to the unfavourable balance of international payments, the value of the currency must have fallen to an average of 13d, in place of 21-31d., even without taking into account private remittances. The balance of the "business" demand must, therefore, have been equivalent to 3$761 per capita, and sufficient to raise the total demand to 14$761 per head.

This increase in the "business demand" may be explained in two manners; either because the "normal" or theoretical demand adopted of 11$000 per capita was insufficient, and did not represent the true coefficient of this factor in 1861, or because it was the result of a real increase in the demand for the circulating medium created by the impulse communicated to business and payments by the Paraguayan war.

During the next period, 1870-1875, the local demand sank to Rs. 13$487; but, as has been already pointed out, as exchange during this period rose to above *par* this coefficient did not then represent, except approximately, the true demand for currency.

During the fourth period, 1876–1885, the local demand remained almost stationary at 13$987, and continued at about this rate during the succeeding period 1886-1889. In 1888 the rate of exchange rose to above *par*, and, consequently, the coefficient of the real value of the total demand for currency no longer represented the precise value of the total demand for currency, which must have been supplemented at least by the amount necessary to raise exchange to the excess it attained over specie point. The supply in 1889 was Rs. 13$969, and the demand necessary to raise exchange to 27½d would be equivalent to 14$260.

Taking the supply at a round number, 14$000 in lieu of 13$967, the situation at the close of 1889 was as follows:—

Supply of currency Rs. 14$000; Demand, Rs. 14$260; in 1890-1892, the Supply had increased to Rs. 34$387 per head and the "*international*" demand, consequent on adverse balance of foreign payments, had fallen by Rs. 4$095, reducing the demand to Rs. 10$165.

Had, therefore, no local circumstances intervened to raise the demand for currency, this must have suffered a proportionate depreciation, which can be determined by applying the formula that the value of the currency is in the ratio of the demand to the supply; then, 27d $: x :: \frac{14.260}{14.00} : \frac{34.987}{10.165} =$ 7d. 86.

The inevitable consequence, therefore, of the simultaneous unprecedented increase of emission and of the fall of international exchange must have been to depreciate the rate of market exchange during the period 1890-1892, to 7d. 86, and if the rate was actually maintained at an average of 17d. during this period it could only have been in consequence of some very considerable increase in the *local demand*, seeing that the balance of bullion exports and imports as well as of private remittances was also unquestionably unfavourable.

The rate of the local demand sufficient to maintain exchange at 17d. must, therefore, have exceeded 11$322 per capita, in order to raise its value from 10$165 to that of the average real value of the currency, or nett demand, 21$487.

Such an unprecedented inflation of the local demand was the simultaneous result of both a real and a transitory cause; the real cause was the animation noticeable in every class of business or industry since 1888, which still continues, and the transitory

cause the reckless speculation which in 1889-1892, absorbed such immense quantities of money as to find an increase of even 135 per cent, of the currency insufficient to satisfy its voracity.

The real cause persisting after the transitory demand created by speculation has ceased succeeded in 1893 in maintaining the demand at Rs. 18$009 per capita and the rate of exchange at 10d., when, in consequence of still further emissions, it would otherwise have fallen to 7.56d.

Although the demand due to the element of speculation has not been entirely eliminated, the collapse in 1892 of the speculative epidemic, termed in Rio the "ensilhamento," must have caused a considerable reduction in the demand for the circulating medium, so that any improvement that may be noticeable can, in view of the unfavourable state of international exchange, be only attributed to a real increase of the demand for legitimate business purposes.

It is certain that the value of the currency depends on the relations of supply and demand. Were the demand greater than the supply, whatever might be its origin, depreciation would be impossible.

It is equally certain that the demand can be largely influenced by speculation of every kind, and that as soon as the extraordinary demand it originates ceases, the value of the currency must suffer proportionately, unless the reduction of the demand is compensated in other ways.

Thus in 1890-92, the combined influence of speculation and a real increase in the local demand for currency due to the growth of legitimate business succeeded in maintaining the value of the currency 116 per cent. above the value it would have attained if the same rate of demand had been maintained as in 1889.

In 1893, although the natural increase of the demand due to the growth of population continued, and the reduction of the 'international' demand showed less shrinkage than in 1890-92, if compared with 1889, the collapse of speculation so reduced local business that the demand was quite unable to maintain the market exchange at a rate more than 32 per cent. above the value that otherwise corresponded to the quantity in circulation.

If, then, the operations of speculation tend to raise the value of the currency, the irresistible conclusion appears to be that speculation should be encouraged!

It must, however, be borne in mind that speculation operates by raising or lowering prices artificially, and often without real cause; such alterations of value can, however, persist only so long as the speculation itself is maintained; and when it finally

collapses, as it must (unless supplemented by real causes, when it ceases to be speculation) and prices fall or rise again, the demand most likewise return to the *statu quo-antes*, with the aggravation of the transfer of a portion of the wealth of the country to foreigners, that is the invariable result of such speculative mania.

The Currency

The history of the Brazilian currency, like that of the Argentine, is that of almost uninterrupted depreciation; its value having fallen 85 per cent., from 67½ pence in 1883 to 10d., its present value. Even this tremendous depreciation is, however, less than that which the Argentine currency has experienced, that is more than 98 per cent. since the first emission of paper-money was made by the Province of Buenos Aires!

The "Rio News" thus describes the manner in which the depreciation has been brought about, and the successive reductions of the standard value of the currency effected.

"During the colonial periods the remittances from Brazil to Portugal were made in gold ingots, or in "Johannes," a gold coin valued at 6$400 reis or £1 16*s*., the *par* of exchange being 5*s*. 7½*d*. per milreis.

"This *par* of exchange was not changed until 1833.

"In 1808 the arrival of Don Joao VI. effected a radical change in the social, political and commercial life of the country. The ports of Brazil were then, for the first time, opened to foreign commerce, and many foreign merchants became resident here.

"The King and his Court were poor and greedy, and the revenues of the colony were far from sufficient for their demands. Recourse was first had to the coinage of silver, which yielded a profit of 20 per cent. To facilitate this, the Spanish dollars brought from Peru by the homeward bound treasure ships, were largely bought up at 800 reis "fortes" each, and then stamped 960 reis, the Spaniards accepting drafts on London, or gold, in payment.

"These transactions and the rapidly increasing import trade of the colony, drained the market of drafts and gold, and the rate of exchange soon ranged at 6*s*. 8*d*. to 7*s*., going even to 8*s*. 2*d*. in 1812-13.

"It soon happened, however, that the 'weak' (fraca) silver coin exceeded local requirements, and, as gold was no longer current, it practically became legal tender, and was used in the purchase of exchange on foreign countries. The rate then began to fall until gold passed its *par* valuation and was quoted at a premium, the rate being about 4*s*. 7*d*.

"The merchants then remitted gold in preference to bills, and this soon exhausted the supply of gold coin which remained in the country.

"The Portuguese Court then had recourse to another expedient—the issue of paper currency—which in 1819 became redundant, and depreciated to such an extent that it was necessary to declare it a legal tender by law.

"This caused a further fall in exchange, which stood at 4*s*, at the time of Don Joao's departure from Brazil.

"During the first Empire the situation became even worse, owing to unwise bank legislation and the creation of a foreign debt. In 1823 exchange had fallen to 3*s*. 11*d*. A foreign loan was then secured and the rate improved, the quotations ranging from 4*s*. 4*d*. to 4*s*. 8*d*. at the end of 1825 and the beginning of 1826. The rate then declined again under the influence of foreign and domestic troubles until in 1830 it reached the alarmingly low quotation of 1*s*. 6*d*. to 1*s*. 7*d*. This was a much greater fall than anything we have since experienced.

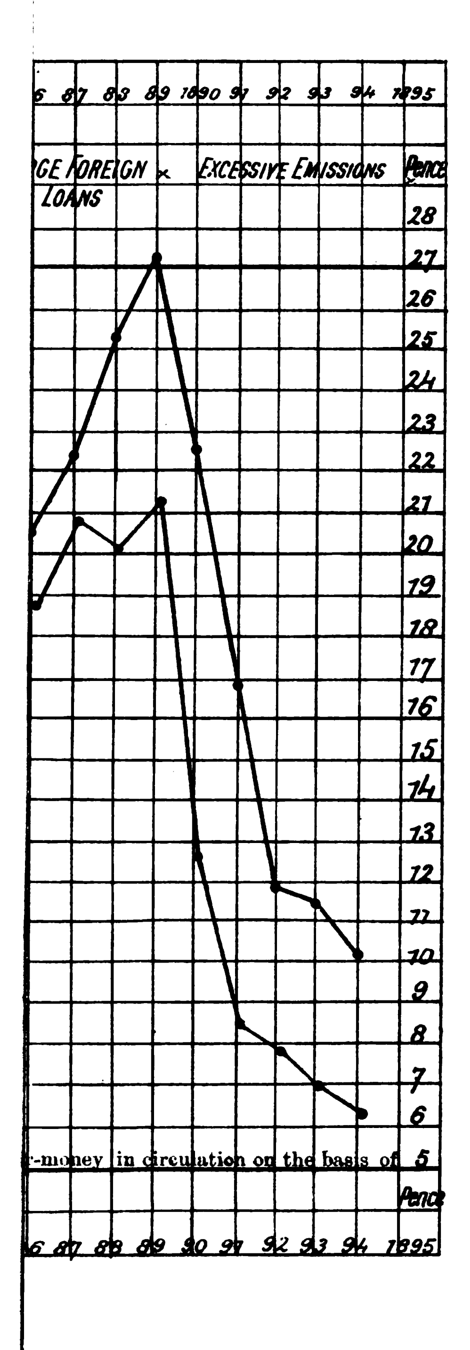
"Under the Regency many reforms were instituted for the improvement of the national finances, among which was the liquidation of the bankrupt bank of issue and the substitution of its depreciated notes by others issued by the Treasury. In 1833 the coinage was revised, and the '*par* of exchange' was fixed at 3*s*. 7½*d*. per milreis. The current rates improved rapidly for a time, but failed to reach the *par* established.

"In 1846 another change was made in the monetary values of the country, and the present *par* rate of 2*s*. 3*d*. per milreis was established. Under this standard the lowest point reached, previous to the present crisis, was 1*s*. 2*d*. in 1868."

The increase of the paper money in circulation has followed no regular course, but has been emitted indifferently during high or low exchange in obedience to the caprice or necessities of the emitting authorities. The amount of currency in circulation during the three periods, 1, 3 and 5 of high or rising exchange, did not exceed Rs.18$050, per head and during the three periods of low exchange 2, 4 and 6 rose to an average of Rs. 26$852.

The quantity of paper money in circulation depends on the caprice of the emitting authorities and cannot, therefore, be an *effect* but a cause of its depreciation.

Although the emitting authorities can arbitrarily interfere with the value of the currency, they cannot fix its value, which depends on circumstances beyond their control; nor yet can they force into circulation a larger quantity of paper-money than that for which a positive demand exist, except by depreciating the value of what is already in circulation. The quantity of even metallic currency is regulated by considerations of supply and demand, and when the mechanical method of adjust-


6 87 88 89 1890 91 92 93 94 1895
GE FOREIGN LOANS
EXCESSIVE EMISSIONS
Pence
28
27
26
25
24
23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
-money in circulation on the basis of
5
Pence
6 87 88 89 90 91 92 93 94 1895

INCE 1860.

Paper-Money in circulation per capita		Population
Currency	Gold	
Rs.	Rs.	Millions
11$984	11$485	8.00
9$730	9$483	8.10
9$642	8$526	8.20
10$930	10$930	8.30
11$874	11$874	8.40
11$703	10$782	8.60
12$825	11$519	8.80
13$164	9$360	8.90
13$701	9$853	9.10
19$701	13$773	9.30
20$266	16$092	9.50
19$774	17$715	9.70
18$880	17$482	10.00
18$050	17$340	10.25
17$437	16$220	10.50
16$918	16$918	10.75
16$311	15$292	11.00
15$941	14$952	11.25
18$167	14$930	11.50
18$451	15$940	11.75
17$973	14$810	12.00
17$329	14$479	12.25
16$982	13$247	12.50
16$548	13$140	12.75
16$125	12$467	13.00
15$688	10$640	13.25
15$809	12$086	13.50
14$712	12$186	13.75
14$662	13$640	14.00
13$909	13$909	14.25
23$223	19$329	14.50
34$830	21$725	14.75
37$214	16$385	15.00
42$282	18$009	15.20
45$116	16$814	15.60
49$316	—	16.00

ment that it follows is interfered with, the inevitable result can be only attained by the depreciation or appreciation of what is already in circulation.

Paper Money in circulation.

	PERIOD	ANNUAL AVERAGE VALUE OF TREASURY NOTES IN CIRCULATION	ANNUAL AVERAGE VALUE OF BANK NOTES IN CIRCULATION	ANNUAL AVERAGE VALUE OF TOTAL NOTES IN CIRCULATION	COEFFICIENT PER CAPITA	COEFFICIENT OF REAL OR GOLD VALUE AT AVERAGE ANNUAL RATE OF EXCHANGE	ANNUAL AVERAGE RATE OF EXCHANGE
		Rs.	Rs.	Rs.			Pence
1°	1860—1864	35.590:649$	53.253:438$	88.844:088$	10$832	10$459	27d
2°	1865—1869	61.706:184$	66.010:686$	127.716:876$	14$289	11$057	21.31
3°	1870—1875	149.984:848$	37.200:728$	187.018.911$	18$554	16$931	24.30
4°	1876—1885	179.803:244$	25.525:042$	205.534:869$	16$951	13$989	23.37
5°	1886—1889	188.324:576$	16.665:706$	204.990:278$	14$774	12$944	24.35
6°	1890—1893	219.347:006$	293.978:377$	513.325:383$	34$384	21$487	13.65
	1860	40.700:613$	55.172:840$	95.873:098$	11$984	11$485	
6	1895 Jany.	368.750:096$	420.714:000$	789.069:464$	49$316	18$690	

That the actual depreciation of the currency is the effect principally of excessive issues of paper money since 1889 is generally admitted, but great difficulty is encountered in attempting to reconcile this theory with the fact that, whatever the quantity may be, it seems to be never sufficient to satisfy the demand for the circulating medium. From this it has been argued that the supply cannot be excessive, or that, if formerly so, it is not any longer; because the demand has grown in a similar ratio.

This confusion of ideas arises from failing to distinguish between cause and effect. The depreciation of the currency is

the effect, and not the cause of an excessive supply. The demand for the circulating medium is a demand for a sufficient amount of money with which to effect the usual operations of exchange; if, then, the supply is increased so that it exceeds the necessities of these operations it must be either reduced in quantity or depreciated, and its depreciation continue until the supply and demand again balance.

If, therefore, exchange is falling, it may he safely concluded that the supply is still excessive, as otherwise it could not fall any further.

If exchange rises it is a proof that the supply has diminished or the demand increased. When the quantity of paper money is invariable the rise of exchange raises its value and thus again balances the supply with the demand. An inconvertible and depreciated currency can never be excessive because immediately it tended to become so a new depreciation must again reduce its value, and thus re-establish the equilibrium of the supply and demand.

It may, however, become insufficient, as in 1889 when exchange rose to 28d., and paper money to a premium; because when the increasing demand has raised its value to *par*, the maximum arbitrarily established by law, it can go no further, except for a short time sufficient to admit of bullion being imported. If after raising the value of the currency to *par* the demand continued increasing whilst the supply remained unaltered, the amount in circulation would be then insufficient, but would be remedied by the importation of bullion if international exchange continued sufficiently favourable. Unless the circulation could be thus supplemented the emission of paper money must be either increased or the supply remain insufficient.

The diagram fronting page 160, represents the curve that the variations in the real value of the currency have followed since 1861, and that of the variation that corresponds to a constant local demand of 11$000, per capita, the coefficient of the actual circulation in 1881. The first is represented by a red, and the latter by a blue line. The variations of the second have been determined by the equation of value $v' = \frac{Vd'S}{Ds'}$.

When $V. = 27$d *par*

$D = d' = 11\$000$

S & s' = the average annual quantity in circulation.

In spite of the differences between one curve and the other, due to the demand being a varying and not a constant quantity

as is generally imagined, the general resemblance and tendency of each is so similar that it becomes difficult to understand how it can possibly be disputed that the variations in supply, or quantity of currency in circulation, must be a powerful factor in determining its value!

Nevertheless it is constantly disputed; and two eminent statesmen, V. de Ouro Preto and Dr. Ruy Barboso, are both agreed that the quantity of paper-money does not affect the value of the currency; a theory that they have apparently evolved from their inner consciousness and from their belief in the enjoyment of exceptional privileges by their country. Why Brazil should be regarded as an exception to the economical laws that rule other countries is not explained. What this dangerous tendency, to regard Brazil as an exceptionally favoured community to which ordinary rules do not apply, very clearly indicates is that Political Economy is either very little understood in this country, or that it is not regarded even by the most advanced thinkers as an exact science, or thought to have yet emerged from the empiric and speculative stage.

Dr. Ruy Barboso in the report of the Ministry of Finance for 1891 states that:

"It has been the habit amongst those that consciously or unconsciously continue under the Republic to promote certain imposing speculative interests, that have been left as a legacy by the precocious senility of the monarchy, to stimulate the prejudice that observes in the excess of the circulating medium and exuberant emissions of paper money the origin of the oscillation in the rate of our exchanges. To this fallacy Sr. Affonso Celso (Vizconde de Ouro Preto) replied not long ago in a speech in the chamber of Deputies, 18th May, 1879. 'The proof,' he then said, 'that the quantity of paper-money in circulation can have no power in this market to depreciate the rate of exchange is furnished by three highly significative facts. The years 1859 and 1860 mark the period of the greatest expansion of local credit, when the emission of paper-money also suffered its most rapid and considerable increase. Metallic money disappeared from the circulation and new emissions were made by the Treasury, by several banks, and by their branches. The 50.000:000$ that were then in circulation were rapidly increased to 90.000:000$, but exchange did not fall, but positively rose to 27d. Fifteen years later exchange stood between 23 and 25 pence, when a financial crisis broke out; the banks were threatened, and the Government believing it to be its duty to assist them authorised a new emission of 25.000:000$. What then happened? Exchange far from

falling rose, as it was gradually emitted, to 28d. and even higher, to 28⅜d; and, on the contrary, when the Government later on attempted to call in the fresh emission exchange fell to 24 pence. Even now, on the occasion of the decree promulgated by my predecessor, (authorizing an emission of 40.000 000$) no fall of exchange occurred, on the contrary, it rose. It can, therefore, only be concluded that the quantity of paper-money in circulation exercises no influence on the rate of exchange." The experience of the Republican period (1889-1891)," adds Dr. Ruy Barboso, " is not opposed to, but corroborates this conclusion!"

Both the V. de Ouro Preto and Dr. RuyBarboso single out one only of the multitudinous factors that influence the course of exchange for observation, and because the market rate of exchange, or ultimate value of the currency, which is the resultant of all the different causes that react upon it, has not suffered, rashly conclude that the action of that particular factor could not only never have been prejudicial but was absolutely beneficial, without having previously decomposed the resultant into its elements or primary factors, and then determined the independent action of each!

It has been already pointed out how the emission of paper-money merely in substitution of the metallic currency would produce a purely transitory depreciation so long as international exchange remained favourable. This is precisely what occurred in 1859–60. The paper-money in circulation was increased by 40.000:000$ and raised the coefficient to about 11$000.

This emission drove abroad its equivalent in gold, so that in reality no increase of the currency had occurred, but merely a substitution. When gold had emigrated to the value of the increased emission prices returned again to their normal level, and exchange to *par*, international exchange having been meanwhile uniformly favourable, whilst the foreign loans of 1858, 1859 and 1860, undoubtedly, powerfully influenced the final result. It was, therefore, perfectly practicable in 1850 to increase the amount of paper money in circulation without any apparent depreciation.

Fifteen years later, the V. de Ouro Preto states, the emission of 25,000:000$ failed to depress exchange, which rose, on the contrary, to 28d., but forgets to take into consideration the simultaneous influence on exchange of a foreign loan negotiated in 1875, the same year, for £5.000,000.

If, again, exchange did not fall in 1879 in consequence of the issue of 40,000:000$ it may be certainly concluded that it was because the very large importation of foreign capital that took place at that date for construction of Railways, etc., or the favour-

able balance of international trade prevented it from doing so, and not because the sequence of the phenomena that must control such matters had been modified by some special Providence for the occasion.

It is a dangerous and mischievous practice, certain to lead to deception, to attempt to found general deductions on the observation of isolated phenomena without taking into sufficient consideration the collateral effect of all the rest.

To be able to determine the real cause of any rise or fall in exchange, or to state positively that a specific cause has affected the value of the currency in a specific manner, it is indispensable to weigh the *pros.* and *cons.* of all the different factors that exercise an influence on the course of both international and nominal exchange; in which must be included the increase of foreign capital, the movement of imports and exports of merchandise and bullion, the increase or decrease of foreign payments and a multitude of elements besides the mere increase or decrease of the circulating medium!

Of all the social sciences none has yet attained the same relative degree of positivism as Political Economy. Fifty years ago M. Leon Say in his treatise of Political Economy wrote: —

"Les valeurs et les quantités dont elle s'occupe, étant susceptibles de plus et de moins, sembleraient devoir entrer dans le domaine des mathématiques, mais elles sont en même temps soumises á l'influence des facultés, des besoins, des volontés des hommes; or on peut bien savoir dans quel sens agissent ces actions diverses, mais on ne peut pas apprecier rigoureusement leur influence, de la l'impossibilité d'y trouver les données suffisamment exactes pour en faire la base d'un calcul."

Since that was written both Economic Science and the collateral and methodical study of Statistics have taken great strides and warrant the belief that not only will the inevitable sequence of economical phenomena be ultimately determined by laws as mathematically precise as those that regard the movements of the planetary system, but that even the purely moral influence that the variations in such elements as will introduce, will finally be also reduced to its mathematical equivalent.

What Hume and Comte term the 'invariable antecedent,' if searched for in explanation of the apparent inconsistencies of economical phenomena, will be found to be always reducible to a positive quantity, and the variations that other factors of an abstract character, such as speculation or politics, to which we are all so disposed to attribute the variations of exchange, to be

purely transitory, the real and final course of things being as little affected thereby as that of the sun or of the everlasting stars themselves.

With such a vast and promising field for investigation and reform it is surprising that the numerous school of Brazilian Positivists should have confined their attention almost exclusively to other branches of Sociology, which, being less advanced, are less likely to yield immediate results of a practical nature.

The general rise in prices, that must result from either an increase in the volume of the currency beyond the normal demand, or of a fall in international exchange, will ultimately affect all commodities alike, unless arbitrarily interfered with, but will not do so simultaneously nor uniformly.

Some prices rise simultaneously and in the same ratio as that of bullion, as has been already demonstrated, whilst others only rise slowly and at long intervals.

The influence that this differential rise in prices exercises on the cost of production and exports is most important, and has never been properly analysed or appreciated, though, in a general way it is now admitted that the depreciation of silver has in some manner served as a stimulus to production in countries that use a purely silver currency, such as India and Japan, and that the depreciation of other currencies, such as that of the Argentina, has operated in a precisely similar manner, and placed those countries in a position to compete with others which employ gold currencies on more advantageous terms.

The first commodities to rise in price on account of a local depreciation of the currency must be exports and bullion, that will rise simultaneously and uniformly so long as the foreign demand remain the same.

This will be followed by a rise in the prices of imports, but in a less ratio, for reasons already explained. The prices of labour, and of local products not likewise imported or exported will follow more slowly and with small additions at long intervals; and finally the rise will affect even official fixed salaries.

The only values that will not rise at all will be those of public securities and fixed charges, and of debts payable in currency; these must, consequently, suffer a depreciation equivalent, not to the rise in the price of bullion, but *to the average rise of all prices*

There is always a considerable interval between the rise in the price of bullion and exports and that of labour and local values, such as rent, food staples, &c; and it is, unquestionably, this differential rise of prices that confers such great and positive

advantages on production and exports, by reducing their real cost and raising profits, as, although if the depreciation continue long all prices must ultimately reach the same ratio from which they started, in the meantime the advantages secured are positive and would have communicated a great impulse to production.

The great danger lies in the improvement of exchange, that is liable to destroy the advantages thus attained; as, when exchange once commences to rise again, the prices of exports must fall immediately, whilst those of imports and local values will fall less and more slowly, and, consequently, the cost of production likewise, just as they had risen tardily previously, and thus reduce profits and discourage enterprise.

To take an example we find that the price of labour in the factories of the Co. Union Fabril of Rio Grande has risen from the year 1889 to 1893 from 1$500 to Rs. 2$358, equivalent to 53.1 per cent.; whilst the prices of exports and bullion have risen 151 per cent.

There is, however, no reason why wages *should* rise precisely in the same ratio as exports and bullion ; on the contrary, there are solid reasons why they should rise less, which consequently they will do; because, even if all labour were to rise precisely in the same ratio as exports and bullion, there would still be some other prices, especially those of imports, which, in consequence of the action of the customs' tariff, would have risen less, and so wages, although in this case they would have only preserved their normal price, would have surpassed their normal value.

Every successive increase of wages will, however, diminish the difference between the prices of local values and those of exports, until the point will be reached when the difference will correspond merely to that between the rise in the prices of imports and that of exports, due to the influence of the customs' tariff. If, however, this advantage were destroyed by the recovery of duties on a gold basis, ultimately wages, and consequently all prices, would have risen alike, and no attempt of capital to prevent it will then succeed in keeping wages below their proper price so long as the demand for labour is in excess of the supply.

The rise in the prices of different local values and of labour is neither capricious nor arbitrary, as is generally supposed, but must obey definite and precise laws both as to the manner, sequence and rate of increase.

As has been already shown, if even there were no foreign trade

at all a sudden increase of emission would raise prices; but in this case the rise would be uniform and affect everything alike, so that there would be no alteration of values.

In point of fact, when exchange falls, whatever may be the cause, the prices of exports and of imports must rise, the former in the same ratio as gold and the latter in a somewhat less ratio, and, consequently, a disturbance of all values will ensue.

The fall of exchange would have been brought about by the demand for exportable products exceeding the supply: the price of exports and of bullion, therefore, would have risen in proportion to the excess of the demand to the supply, by which the rate of exchange is regulated, and those of imports would have also risen by their increased cost of production, but not in the same ratio, in fact much less. There being no increase in the demand for products of purely local consumption (such as black beans farinha, house rent, labour, etc.,) their prices would not be directly affected by the fall of exchange except so far as their cost of production was affected by the rise of imports and, consequently, would not rise on this account.

To take an example, beans and farinha will continue to exchange in precisely the same proportions as before the fall of exchange, but their values in relation to exports and imports will have undergone a change, and the same quantity of farinha and beans which originally exchanged for a certain quantity of coffee and all three for the same number of milreis, will do so no longer; more farinha and beans will be necessary to purchase the coffee and their values must be readjusted until they suffice to exchange for the same quantity as before. If then two sacks of beans sufficed originally to purchase one sack of coffee and one of farinha, when each were worth 5$000, if coffee rose to 10$000 the price of one sack of beans must be advanced until it still continues to exchange for the same amount of farinha and of coffee as previously to Rs. 7$500 and not to Rs. 10$000 as would appear.

2 Sack of Beans will =	1 Coffee =	10$000
	1 Farinha =	5$000
		15$000
1 Sack therefore =		7$500

The price of farinha will, therefore, have risen as that of beans, but their value in relation to exports (coffee) and imports will have been reduced; they will continue to exchange for each other as before, but for less quantities of imported and exportable commodities.

Even this rise will not be immediate, and in the meantime, more beans must be given for the same quantity of farinha and coffee, or less bought. Ultimately, however, if the fall of exchange persist, the rise in the price of exports and imports must affect the price of labour, so that less beans will be produced for 5$000, and their price must rise until it becomes equivalent to the rise in labour and to that of the exportable products and imported commodities consumed in their production.

In the same way the price of labour must rise. If a labourer, who earned Rs.30$000 a month and was accustomed to spend Rs. 20$000 in farinha, beans, meat and other inexportable local products and Rs. 10$000 in clothes, coffee, and other imported and exportable commodities, found that on account of the rise in prices, consequent on the fall of exchange, he would now require to spend 15$000 on these last, he must either curtail his local expenditure or go without some of the coffee and clothes, or else raise the price of his labour. At first he would probably have to sacrifice his expenditure, but, ultimately, the demand for labour being greater than the supply, wages would advance from $30 to $35, increasing 17 per cent., whilst exports and imports had risen 50 per cent. The rise in the price of wages would then react as in the amount of his other local expenditure, which would also rise, and so his wages would be again insufficient, and must be again increased until, finally, the prices of exports, imports, and labour, and of unexportable products for local consumption not likewise imported had all attained the same level, equivalent to the rise in the price of bullion. When this occurred, wages could rise no further, because, if they did, the local prices of exports and local manufactures would be in excess of the foreign prices, the demand would fall off, and prices fall again; in the case of local manufactures the fall being brought about by the competition of foreign imported goods.

In a similar manner rents must rise also. The cost of building must be affected by the increased price of imports, and labour and rents rise proportionately. If little or no building is going on the rise will be produced in the same manner as that of wages by the necessity of the landlord readjusting the value of rent to the general rise of prices.

Salaries, especially official, will rise last of all, because the supply of this class of labour is largely in excess of the demand.

The rise in the prices of labour to the same level as those of exports and of non-exportable products not likewise imported will be, however, extremely slow, and that of imports will not rise at all to that level unless duties are likewise levelled up to

the *par* value. Production and exports will absorb the whole of the advantages that this differential rise of prices creates, local manufactures finding in it merely a compensation for the disadvantages created by the reduction of duties that the fall of exchange has brought about.

Local products, not imported nor exported	1888 prices average exchange 27d	Equivalent of the prices of 1888 at 10½d exchange	1895 actual prices
Farinha Mandioca: per Sack...	2$000	5$140	13$000
Beans...	6$370	16$370	12$500
Sugar (moscado)...	6$750	17$317	13$500
Products likewise imported			
Flour...	17$500	44$975	10$096
Rice...	12$500	32$185	18$500
Corn ...	2$500	6$425	6$600
Lard ... (kilo) ...	$368	$945	$740
Dried meat (Xarque) ...	$116	$298	$280
Pine boards...	11$000	28$270	28$000
Imports			
Kerosene...	7$500	26$775	8$966
Wheat flour, 3 average qualities.	17$500	44$975	10$076

The prices quoted for farinha, beans, lard, rice and pine boards are those of the producing market, Porto Alegre.

The prices of dried meat sugar, kerosene, etc., are taken from annual review of the Jornal do Commercio of Rio Janeiro.

This table shows that the prices of local produce neither likewise imported nor exported, as well as that also imported, and the prices of imports themselves have not increased in the same ratio as those of exports and of bullion in six cases out of eight; whilst the most notable exception, farinha de mandioca, has risen much more, from 2$000 to 13$000 per sack, proving this exceptional rise in price to be the effect not only of the general rise of prices caused by the fall in exchange, but also of the increased local demand for this particular product by other parts of the country, which, whilst population has rapidly increased, have not augmented their production in proportion.

Amongst the imports the most notable exception to the general rule is that of wheat flour, which has positively fallen in

price from 17$500 in 1888 to 10$076, in lieu of rising; the reason for this apparent contradiction is to be found, likewise, in in the relations of supply and demand, it being well known that in consequence of the enormous production the prices of wheat and flour have fallen universally, and elsewhere even more than in Brazil!

In consequence, the rate of the general rise in prices will correspond to the ratio between the expenditure on account of exportable and imported commodities and that for commodities of local production neither exported nor imported and other local charges, such as rent, taxes, etc.

This ratio will vary in every case according to the customs and habits of different classes and even of individuals in the same place. It will be greater in towns than in the country, and amongst the upper than the lower classes; and explains why the depreciation of the currency is scarcely felt by the latter, whilst its slightest variation affects the comfort of the former class.

It must not, however, be expected that the variations of prices will correspond precisely to this rule, because prices are controlled not only by the cost of production but also by the variations of supply and demand.

With the object of obtaining an illustration of the manner in which the rate of wages and of profits are affected by variations in the value of the currency, the operations of the Fabril and Pastoril Company of Rio Grande have been analyzed in detail since the commencement of its operations in 1884.

This Company may be regarded as typical of a properly conducted mauufacturing business, as also of the general rise and fall of both wages and profits.

Turning to the table fronting page 177 it will be found that wages underwent the following variations since 1885, when the average wage was 1$600 paper per diem equivalent to 1$100 gold at the then rate of exchange 18 $\frac{9}{16}$ pence.

	AVERAGE RATE OF WAGES IN CURRENCY	AVERAGE RATE OF WAGES IN GOLD	AVERAGE RATE OF EXCHANGE Pence	RISE AND FALL OF EXCHANGE %	RISE AND FALL OF NOMINAL WAGES Currency	RISE AND FALL OF REAL WAGES Gold
1885	1$600	1$100	18 9/16			+ 28.2%
1886–1889	1$576	1$412	25 5/8	+ 20.4%	— 1.5 %	—10.4 %
1890–1894	1$842	0$985	12 7/16	—47.4%	+ 15.0 %	

Exchange rose in 1886-1889 to an average rate of 25⅝, or 20.4 per cent., but wages fell only 1.5 per cent. estimated in currency, and show a positive increase equivalent to 28.2 per cent. if reduced to their gold value. Inversely when exchange fell in 1890-94 to an average rate of 12 $\frac{7}{16}$ pence, or 47.4 per cent. estimated by their gold value, wages only rose 10.4 per cent., if estimated at their real value although their nominal or currency rate had increased 15.0 per cent.

For comparative purposes the standard rate of wages adopted has been fixed at 1$200 gold per diem. For the whole period of 10 years, 1885-1894, the rate of wages shows an increase of 14.2 over the initial currency rate of 1$600 in 1895, but a depreciation of 3.08 per cent. compared with the gold standard. From 1885 to 1887 with a rising rate of exchange, wages showed a slight appreciation of 0.34 per cent. in their real value, which increased to 14.33 per cent. in 1887-90 when exchange rose to *par* whilst during 1890-1894, when exchange fell violently to an average of 15¼ pence, the real value of wages was depreciated 21 per cent. In 1894 in spite of the rise in nominal wages from 1$793 in the previous year to 2$358, the depreciation, with exchange at 10¾ pence, was 21.5 per cent. and still continues. The greatest depreciation of wages was in 1893 when it reached 34.8 per cent., and the greatest appreciation 37 6 per cent. in 1888 when exchange rose to *par*.

This table demonstrates indisputably, if indeed any proof were required, that the rate of wages neither falls nor rises in the same proportion as the appreciation or depreciation of the currency but always in a less degree. If similar careful analysis were effected in regard to other classes of labour in different parts of the country it is certain that similar results, though not identical in all cases, would be obtained. There is unquestionably a settled maximum depreciation for each locality that cannot be exceeded without causing disturbance of the relations of Labour to Capital; a maximum which varies with the different standards of living in different trades and localities, which in turn are determined by the general rise of prices, and not that of gold or exportable and importable commodities only.

In order to analyse the manner in which the profits of the Company have been affected by the rise or fall of exchange it is indispensable to reduce both the capital and profits realized to a standard value, as no comparisons can be instituted on the basis of paper-money of oscillating value.

In order to reduce the Capital of the Company to its real or gold value it has been divided into "fixed" and "circulating." The fixed Capital is represented by the expenditure as shown in

the Company's annual balances on account of machinery, buildings, etc., reduced to its real or gold value at the average exchange for the year in which each separate expenditure took place. The circulating capital, being preserved in currency, has been reduced to gold at the average rate of exchange for each year, and the sum of the two, fixed and circulating capital, then represents the real or gold value of the capital invested for any year. From 1885-1888 no circulating capital was employed, and was probably substituted by loans, which probably accounts for the comparatively low rate of profits for those years.

The average capital employed for the 11 years 1884-1894 was Rs. 1.498:818$ currency, but reduced to gold in the manner described, was only Rs.976:218$.

Gross profits represented 17.81 per cent. estimated in currency on the currency capital for the whole period 1884-1894, and reduced to gold yielded a profit of 19.0 per cent. on the gold capital employed. Profits estimated in currency were 11.23 per cent. from 1884 to 1887 with a rising rate of exchange, 14.91 per cent. from 1887 to 1890 with exchange about *par*, and 24.25 per cent. from 1890 to 1894 when exchange fell lower than it ever had before. The same precedence is observed in the rate of gold profits which were 11.06 per cent. in 1884-1887, 18.8 per cent. 1887-1890, and 22.3 per cent. 1889-1894, calculated on the real gold capital employed.

That the capital reduced to gold in the manner indicated represents its real value is evident because, allowing for depreciation and appreciation of property and plant, it represents their true cost and that at which both the fixed and circulating capital could be replaced, the true test of value.

The aggregate profits resulting from the fall of wages below the standard, 1$200, for the whole period 1885-1894 amounted only to 5:510$ gold, the profits of one period being almost balanced by the losses of another. The average dividend actually distributed was 13.45 per cent. in currency for the whole period it was greatest in 1894, 22 per cent. In gold it represented a dividend of 16.7 per cent. on the real capital employed for 1894. The advantage gained in the long run from the depreciation of wages has not, therefore, been so considerable as might be imagined, and only amounted to about 3 per cent. of the gross profits realized. Of late years, however, owing to the extraordinary depreciation of the currency profits of this origin have increased immoderately, being in 1893 Rs.115.890$ gold, or more than 33 per cent. of the gross profit realized ! In 1894 a rise in the rate of wages reduced this class of profits to more moderate

dimensions, 61.544$ gold or 14.3 per cent. of the gross profits for that year.

Undoubtedly, the constant oscillations in the value of labour, that the changeable value of the circulating medium entails, is a most serious and unsatisfactory feature of our economy, calculated to create endless disturbances and disagreements between Capital and Labour, one of which must be the sufferer by every oscillation of exchange. The advantage that Capital and Industry are now gaining, partly at the expense of labour, in consequence of the depreciation of the currency must inevitably be lost again when exchange commences to rise.

Any means of arriving at something like stability in regard to the rate and value of the wages of labour would, therefore, be a boon not only to labour but to the nascent industries whose prosperity and very existence might be seriously threatened by any violent improvement in the value of the currency.

In regard to the increase in the profits of production resulting from the depreciation of the currency Stewart Mill remarks, in agreement with most other Economists, that " There is no way in which a general and permanent rise in prices can benefit anyone except at the expense of some one else ;" and in respect to the species of forced transfer that the depreciation of the currency effects from Creditors to Debtors goes on to say, " this might be regarded as an advantage to Industry, since the producing classes are great borrowers and generally owe larger debts to the unproductive classes than these owe to them, especially if the National debt be included. It is only thus that a general rise of prices can be a source of benefit to anyone, by diminishing the pressure of fixed burdens, and this might be accounted an advantage if integrity and good faith were of no more importance to the World and to Industry and Commerce in particular."

Any attempt to deliberately debase the coinage or depreciate the currency with the object of obtaining the immoral advantage that such a proceeding would confer on debtors at the expense of creditors would, doubtless, merit even severer strictures ; but, had Stewart Mill a wider acquaintance with the *modus operandi* of a chronically inconvertible currency, he would unquestionably have qualified his denunciations, and admitted that a depreciation of the currency may confer great and general advantages whilst the injury inflicted on certain classes is not so great as it appears.

It is true that the depreciation of the currency will inflict a certain degree of nominal loss on creditors for the benefit of debtors, but this would be a absolute equivalent loss only if the currency

had never been previously depreciated and the debts had been contracted for a real value in excess of that at the depreciated rate; but if all debts were reduced to their real value at the current rate of exchange at which they were contracted, especially if the National debt be included, the nominal or apparent loss would be considerably reduced in some instances, and in others disappear altogether.

There is no logic in the pretension that attempts to bind the debtor but leaves the creditor free to take all and every advantage that the oscillations in the value of the currency may confer.

If a moral obligation exist on the part of the debtor to indemnify the creditor for any loss that the further depreciation of the currency may inflict, surely a similar obligation must exist on the part of the creditor, when by an accidental improvement in its value, to which he has contributed perhaps little or nothing, a similar loss is inflicted on the debtor!

In 1890, previous to the conversion of the 4 per cent. gold 'apolices,' the nominal value of the internal debt payable in currency (apolices) was Rs.381.667:704$. If this nominal value be reduced to gold at the average current rate of exchange of the year in which each separate amount was issued it will yield a real value of only Rs.307.072:198$ actually received by the State, the difference between the two representing the excess that the State must pay if redeemed at *par*, and is equivalent to a positive loss of 19.5 per cent!

The average real value received would yield the equivalent nominal value at an average rate of exchange of 21¾d., that, may, therefore, be regarded as the true *par* value of 'Apolices' that is, the value that would yield neither profit nor loss either to debtor or creditor!

The holders of 'Apolices' payable in currency constitute certainly the class most injured by a depreciation of the currency. It will be, therefore, interesting to examine what the real injury inflicted amounts to were the present holders likewise the original purchasers, and whether it is not in a great measure compensated indirectly in other ways.

In point of fact, as long as the holders of 'Apolices' continue to reside in the country, they will, in consequence of the depreciation of the currency, suffer from a depreciation in the real or gold *price* of their securities, but not from an equivalent depreciation of their *value*. Their nominal or currency prices will remain unaltered and continue to purchase, if not the same quantity of commodities as previously, at least a quantity that will have suffered

much less reduction than that which the value of the currency itself had undergone.

If, for example, a person owned Rs.60:000$ in 5 per cent. 'apolices' which yielded an annual interest of Rs.3:000$, that, when exchange stood at *par* sufficed for all his annual expenditure, and exchange fell from 27d. to 9d., as the consequent rise in prices would not be uniform, the average general rise would not, probably, exceed 100 per cent. He would, therefore, only be obliged to double his expenditure to maintain the same standard of living, and the *value* of the Rs.3.000$ would have been depreciated only 50 per cent., while its bullion value or gold *price* would have fallen 66 per cent. So that, as far as its general power for purchasing and payment was concerned, its depreciation would, therefore, be represented by an exchange of 13½d. instead of 9d.!

The real cost of these 'apolices,' however, as has been shown, is not represented by an exchange of 27d but of 21¾, and, consequently, the real loss to the owner of the 'apolices' will be the difference between this value and its general purchasing power, equivalent to 8¼ pence, or 37.9 in lieu of 66%. in other words, the barter value of the original investment will have been depreciated in this ratio.

Turning now to the currency we find that the actual amount of treasury notes for which the State was directly responsible in 1894 was Rs.368.712:096. The whole amount of Treasury notes emitted yielded at the average current rate of exchange of the year in which they were issued a real value (in gold) of Rs.299.291:693.$ of which 173.509:368$ (gold) have been called in, leaving a balance of Rs.225.782:323$, that represents the real value received by the State in exchange for the amount actually in circulation. The difference between the real and nominal value is Rs.142.929.773, and represents the loss, 38.7 °/₀, that would accrue to the State if these notes were redeemed at *par*!

The equivalent of these notes, as they were emitted, was spent by the Government, which received in return certain services or commodities, the price of which would be regulated by the usual considerations of supply and demand, and vary with the osciliations in the value of the currency. Consequently, their real value would correspond to that of the currency, and not to its nominal or *par* value.

This, however, would not be true if the emission were applied to the payment of debts contracted when exchange was higher, or of fixed salaries, for the service of the internal debt, in which cases the loss would be divided between the State and its creditors, the loss to the State being the difference between the nominal value and the real value of the debt at the date it was

contracted, and that of the creditor the difference between its real value at the two dates.

The aggregate real value received Rs.225,782,323$, would give a nominal value of Rs.368.712.096$, equivalent to the actual amount of treasury notes in circulation at the rate of exchange of about 19½d; which, if the whole had been applied to payment of current expenses and not of back debts, would represent the true *par* value of the currency.

The pretence to saddle the State with the obligation of redeeming its debt, both of 'apolices' and treasury notes at its *par* or nominal value would impose a loss of Rs.217.525.280$; equivalent to 40.8 % of the real value received.

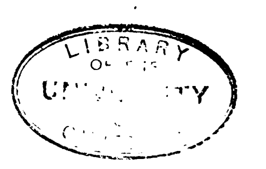
The holders of internal bonds payable in gold will not only suffer no loss from the fall of exchange, but will realize an entirely unearned increment of profit in the enhanced value of their bonds, which will at a low rate of exchange purchase more than at a higher rate; but this advantage is confined entirely to residents in the country itself, and does not extend to bonds held abroad. Special taxation of this class of property, such as is, proposed by the Minister of Finance, is perfectly legitimate and justifiable so long as it be limited to the amount held in the country, and, in fact, is a recognition of a principle that has already been accepted in many of the principal countries of Europe and is destined to become general, the taxation of unearned profits in whatever shape they may occur.

If the principle of taxation of unearned profits is equitable, which is now scarcely disputed, there can be no reason why such profits derived from the depreciation of the currency should be excepted; and, consequently, the holders of apolices could scarcely complain if the value of their securities were permanently regulated in such a manner as to exclude this unearned increment altogether, by means, for example, of a reduction of the standard value of the mil reis.

In attempting to balance revenue with the rapidly increasing expenditure that must result from a general rise of prices the weakest will go to the wall, and subaltern employees of all kinds be sure to suffer by their salaries not being included in the general rise of prices. No doubt, until salaries were re-adjusted to suit the new conditions and values, some hardship would be suffered by this particular class, though, if employers still continued to serve on these reduced terms it would be sufficient proof that their services were previously too highly recompensed, and that the competition of other more highy compensated but more laborious occupations, was still insufficient to divert labour to other channels. As Mill says " the merely mechanical oc-

cupations that demand little skill or judgment and less labour have been everywhere too highly recompensed, not on account of any scarcity of supply but from the unaccountable but universal anxiety which all governments exhibit to regulate the expenditure or rate of payment of their employees, not by usual method of competition, but by their social importance." If, therefore, this class suffer somewhat more than others in consequence of the unequal rise of prices it may be regarded with certain equanimity as some compensation for a previously exaggerated rate of payment.

Other administrative expenditure cannot, however, be prevented from rising in a similar manner, and the general rise of prices must result in a proportional increase of national expenditure, and, unless provision be made to meet it by an increase of taxation, income will prove insufficient and deficits must arise!


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Deficits

Deficits! ah *'There's the rub!'*

Deficits innumerable, annual, perennial, everlasting and ever, increasing deficits!

In these three syllables is comprehended all the mystery of Brazilian finance, the 'head and front of its offending.'

It is a truism, *cela va-sans-dir,* that without deficits there would be no National debt and no inconvertible government issue, because debt, deficits and inconvertible paper-money are all, in a sense, synonymous. What we have to examine is whether, admitting a certain amount of indebtedness as unavoidable or advantageous, the balance is not the result of failure to liquidate ordinary current expenditure with ordinary revenue; and whether that is not the true cause of the excessive indebtedness of the country as well as of the depreciation of the currency! Without debt, it will be objected, there would likewise be no Railways, no Steamboats, no Telegraphs, little Immigration and less Progress.

That, however, is not so certain. And if it were, where is the harm? Was life less agreeable, or liberty less secure before Steamboats or Railways were heard of in Brazil?

Progress, the catchword with which men strive to dignify their haste to be rich, might have tarried, and development have been postponed, but with or without artificial aids the overflow of European labour and capital could not for long overlook or miss a country that embraces so large a proportion of the whole habitable surface of the globe!

The question is; whether this vaunted Progress has not been too dearly bought? and whether the same ends could not have been compassed by the surer if slower methods of Self-help.

America for the Americans, is the cry! but our acts belie our words. We sell our land, and pawn our labour, and endanger our liberty and independence, for foreign gold, import thousands of alien serfs, and call it Progress!

It is not that we love our country less, but that we love ease and wealth more, and these are only attainable by the aid of foreign labour and foreign capital, or else by the disagreeable process of working ourselves!

Was it, then, worth while to pile up a huge debt merely to anticipate by a few years the inevitable, and fill the country

with an alien and heterogeneous population with few of the characteristics necessary for assimilation and conversion into good and useful citizens of a vigorous and homogenous nationality? Was all this selling of our birthright, this discounting of the future necessary, and could it not very well have been dispensed with?

Perhaps it was necessary and beneficial; but the doubt will stick whether any single real advantage has ben gained by the sacrifice of so much that should be dear and is costly, or could not have been attained with greater economy of dignity and treasure by less artificial methods if left to private enterprise and initiation, in place of being prematurely undertaken by the all absorbing overshadowing officialism, that, like the dangerous Upas tree, that poisons all who take refuge beneath it, saps the vitality and independence of the National character.

Progress is a good, an excellent thing, but it must be uniform, or ceases to be true progress, and degenerates into mere money-grubbing. If the general moral and intellectual development does not keep pace with the material advance, manners, customs, and morals will all suffer, and the National character degenerate!

Can we conscientiously believe that this has not already taken place here, as in all other American countries which have gone through the fires of a 'crisis of progress'!

If the official returns of ordinary revenue and of expenditure on the previous page are analysed for the period 1861-1893, it will he found that expenditure has always exceeded revenue without a solitary exception!

The perennial recurrence of deficits would seem to indicate either an absolute indifference in regard to the financial equilibrium or a chronic inability to even approximately estimate future expenditure and resources, and approaches nearer to a solution of the problem of perpetual motion than any yet presented.

Deficits create debt, and this again multiplies deficits, and so on *ad infinitum*.

The total value of the National debt contracted since 1861, taking the real value of "apolices" and treasury notes at *par*, was in 1893 equivalent to Rs.874.318:602$. Deficits for the same period amounted to Rs.820.148:000$, leaving a balance of Rs.54.170:602$ to be accounted for, equivalent to 6.2 % of the nominal value received, and represents the loss realized on the different emissions.

EXPENDITURE, REVENUE AND DEFICITS—1860 to 1893.

	ANNUAL AVERAGE EX-PENDITURE CURRENCY	COEFFICIENT PER CAPITA CURRENCY	ANNUAL AVERAGE EX-PENDITURE GOLD	COEFFICIENT PER CAPITA GOLD	ANNUAL AVERAGE ORDINARY REVENUE CURRENCY	COEFFICIENT PER CAPITA CURRENCY	ANNUAL AVERAGE ORDINARY REVENUE GOLD	COEFFICIENT PER CAPITA GOLD	ANNUAL AVERAGE DEFICIT IN CURRENCY	COEFFICIENT PER CAPITA CURRENCY	ANNUAL AVERAGE DEFICIT GOLD	COEFFICIENT PER CAPITA GOLD	AVERAGE ANNUAL RATE OF EXCHANGE
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Pence
1861—1864	54.751:702$	6$636	52.908:763$	6$418	49.778:558$	6$034	47.981:445$	5$816	4.973:144$	0$602	4.927:318$	0$597	26 7/8
1865—1869	128.594:311$	14$384	99.433:429$	11$122	65.209:368$	7$294	50.950:990$	5$700	63.384:943$	7$092	48.482:439$	5$422	21 15/16
1870—1875	118.743:303$	11$737	109.344:108$	10$808	99.316:925$	9$816	91.978:743$	9$092	19.426:378$	1$921	17.365:365$	1$716	24 15/16
1876—1885	148.944:981$	12$234	122.130:458$	10$078	116.076:786$	9$573	94.845:428$	7$823	32.868:195$	2$661	27.285:030$	2$250	28 1/4
1886—1889	178.406:094$	12$858	157.265:122$	11$334	157.611:049$	11$359	138.723:261$	9$998	20.793:045$	1$499	18.541:861$	1$336	24 1/4
1890—1892	240.039:518$	16$273	147.292:968$	9$981	193.539:969$	13$121	118.871:145$	8$059	46.499:549$	3$152	28.421:823$	1$922	13 1/4
	869.479:829$		688.374:848$		681.532:655$		543.051:012$		187.947:254$		145.028:836$		
1893	298.858:893$	19$532	127.192:968$	8$319	247.767:466$	16$194	105.541:607$	6$898	51.091:427$	3$338	21.661:361$	1$422	11 1/4
	1168.338:722$		815.667:716$		929.300:121$		648.592:519$		239.038:681$		166.685:197$		
Aggregate 1861 to 1893	4796.395:353$		3764.203:552$		3741.262:057$		2964.055:518$		1035.133:296$		820.148:034$		

Of the total debt the Paraguayan war consumed Rs. 327.005:000$, and the construction of railways Rs.201.643:000$, leaving a balance of Rs. 251.500:000$, or 30.5 °/₀ of the nominal value of the whole debt, that has been expended in liquidating deficits arising from the deficiency of ordinary revenue to cover ordinary expenditure.

Such a system of finance continued for a long series of years could only culminate in disaster and discredit, and can scarcely recommend itself to even the most ardent advocate of 'progress at any price' that has any respect for the National honour and dignity.

However convenient such a system of liquidating current expenditure may appear, thus endeavouring to shift the burden to the broad shoulders of posterity, it cannot be defended on the grounds af either equity or morality. The expenditure necessary for the construction of railways and other useful public works, and even that for national defence, might be reasonably shared by posterity, as their advantages will likewise be. Loans amortizable at long dates, or even not amortizable at all, for such objects appear reasonable and legitimate when no other resources are immediately available; but to attempt to saddle future generations with the burden of our own extravagance or incompetence is not only unworthy of a great and wealthy community, but also almost invariably fails in its object and instead of shifting the burden merely perpetuates it, without any proportionate advantage to those that contracted the original debt. From 1861 in 1893 the sum of Rs.251.500:000$ expended in liquidating administrative deficit is, exclusive of the cost ot the Paraguayan war and that of railway construction, represents 8.4% of the aggregate value of ordinary revenue for the same period, that amounted to Rs.2.964.055:518$; so that by simply increasing taxation in this proportion and balancing expenditure and revenue, 30 °/₀ of the total debt might have been entirely avoided

The coefficient of the interest of the debt in 1893 was Rs.2$021 gold per capita. Deducting 70 °/₀ for that part of the debt admittedly unavoidable or advantageous, the, balance of Rs.0$607 per head represents the increase of taxation that has to be met to satisfy the service of the debt contracted for liquidation of deficits, and is precisely 8.6 % of the value of ordinary revenue for 1893. In other words it is almost exactly equivalent to the incrcased taxation that would have sufficed to liquidate all ordinary expedditure without the necessity of incurring any debt at all!

The Brazilian people have, therefore, been patiently paying away immense sums only to find themselves at last in almost

precisely the same position as if the debt had been annually liquidated by increased taxation in lieu of loans, but saddled in addition with a permanent burden of debt that must also be paid off some time or other.

This unexpected result is chiefly the effect of the employment of local capital, and would not have occurred had foreign capital been substituted. An internal loan decreases productive capital and causes a fall in the prices of labour and rate of profits. In rapidly developing countries such as Brazil, where the demand for labour is always in excess of the supply, the loss will fall almost exclusively on the profits of capital and exercise an almost identical effect as actually taking the whole sum required by taxation during the year, with the difference that in this case no permanent debt would have been contracted!

Stewart Mill, in his Principles of Political Economy, drew attention to the comparative disadvantage of raising money by loan instead of the taxation of which the facts and figures just quoted afford such a notable confirmation. The principle advocated by Mill has obtained a general approval, though few Nations, with the exception of G. Britain and the U. States, have had the courage or the energy sufficient to put it into practice.

In G. Britain it has long been the rule that all national current expenditure, of whatever kind it may be, must be paid by taxation, and that the debt shall not be increased except in case of a great emergency.

In the U. States the principle has been carried yet further, it being there decided to pay off all liabilities past and present by taxation. In 1865, at the close of the great Rebellion, the debt amounted to $2,756,431,571 dollars. This enormous debt, contracted almost entirely to defray the expense of the rebellion, has been reduced in 31 years to $1,780,480,669 in 1894; and will be probably paid off altogether in the course of another 20 years, almost entirely by the same generation responsible for its origin.

Deficit and debt, debt and deficit pursue each other in a vicious and ever widening circle, from which there appears no escape. Without apparent origin or finality cause confounds itself with effect, until effect seems to be its own cause!

Enquire; what is the cause of deficits? The answer will be foreign debt and the fall in exchange. Reverse the question: and enquire the cause of the fall of exchange, the answer is deficits and debt!

No escape from such a circle except by cutting it, as Alexander did the knot.

Leaving out of consideration the question of origin, let us now examine the causes that contribute to perpetuate and exaggerate deficits.

If it is true that without deficits there would have been no inconvertible paper-money, and, consequently, no depreciation, of currency, it is equally certain that the fall of exchange is a cause of their perpetuation.

Analyzing the origin of deficits it will be found that the excess of expenditure over ordinary revenue has been caused chiefly by the depreciation, and only secondarily by the absolute increase of expenditure.

The total loss due to the depreciation of the currency, or fall of exchange, for the period 1860-1893 amounts to an aggregate value of Rs.795,107:006$ currency, equivalent to 75.3 °/₀ of the aggregate value of deficits (Rs.1,055,133:496 currency) for the same period. Of this loss, however, only Rs.225,842:300$ or 21.4 °/₀, corresponds to differences of exchange on the foreign expenditure of the State, the balance of Rs.569,264:804$, or 53.9 ₀/°, being the exclusive result of the depreciation of revenue operated by the practice in vogue of recovering duties on imports in currency, whilst the appraisements,on which their value is based, are in gold!

In consequence of this mischievous system, whilst the real value of revenue decreases with the depreciation of the currency, the value of part, at least, of the expenditure, that for foreign charges, remains constant; and, even if the cost of local expenditure did not likewise increase in consequence of the general rise in prices, the equilibrium of the estimates must thereby be disturbed and deficits become inevitable.

To arrive at any correct estimate of probable expenditure under such circumstances is impossible. The difficulty of forseeing the course of exchange makes it impracticable to take this important factor of the ultimate value of expenditure into sufficient consideration; consequently, deficits must be the rule so long as exchange continue to fall.

That this is so scarcely demands proof, *il saut aux yeux*, but if further confirmation were necessary it is amply afforded by the statistics of deficits during the last 35 years. During the three periods of rising exchange the average annual nominal value of deficits was only Rs.15,039:813$ currency, and during those of falling exchange Rs.47,589;825$. If, therefore, the fact that exchange has been steadily falling for 20 years out of the 35 is properly appreciated, it will not require much perspicacity to comprehend the annual recurrence of deficits in the estimates.

The extraordinary expenditure on account of the Paraguayan war makes any comparison of expenditure difficult for the different periods, even if allowance is made for this item.

It is evident, however, that there has been a considerable increase of expenditure since the period 1861-1869, whether it is appraised at its real or nominal value.

The coefficient of the nominal value of expenditure for the period 1860-64 stood at Rs.6$636 currency per head, and increased 174 °/o to 14$384 during the war; at the conclusion of the war it fell to 11$737 in the period 1870-75, rising again to 19$552 in 1893. The total nominal increase of expenditure since 1860-64 was, therefore, been 194 °/o, which if it were real would constitute an enormous and insupportable increase of fiscal burdens.

The study of comparative taxation and expenditure for different periods can be of little use so long as it is based on a variable value such as the inconvertible currency. To compare the taxation of one period with another, nominal values must be reduced to the uniform gold standard.

The real or gold value of the expenditure per head was 6$413 in the period 1860-69 and rose to Rs.9$981 in 1893, an increase of only 55 °/o, compared with that of 104 °/o in its nominal value.

In the 2nd period 1865-69 expenditure, owing to the extraordinary outlay of the Paraguayan war, took a great leap, increasing suddenly 73 °/o from Rs.6.$473 to Rs.11$122 gold per head, an increase that was to be expected under the circumstances, but which, at the close of the war, was never wholly recovered, expenditure falling in the next period, 1870-75, to only Rs.10$808 gold, and continuing to rise again until it reached the maximum of 11$808 gold in 1886-1889; and shows how much more simple a matter it is to increase expenditure, than to reduce it again to its normal level.

The increase of 55 % in the real value of expenditure, small as it appears compared with the nominal increase of 158 %, would have been, if not unbearable, at least extremely irksome unless compensated in some manner. This was accomplished for a time by the very simple method of transferring part of the burden to the shoulders of posterity in the shape of loans.

Turning again to ordinary revenue, we find that if appraised at its nominal or currency value, there has been an almost uniform increase equivalent to 168 % from the period of 1861-1864 that of 1890-1893, when the coefficients were 6$034 and 16$194 per capita respectively, whilst expenditure has risen still more, or 194 %.

This apparent increase of revenue, and consequently of taxation, is, however, almost purely nominal; in reality it is much less and

illustrates the worthlessness of comparisons between values that vary with every oscillation of exchange.

The real value of receipts per head for the period 1860-64 was 5$816 gold, and rose only 16.6 per cent. to 6$898 gold in 1890-93, in lieu of the increase of 168 per cent., shown in their nominal value.

The real value of Revenue and taxation has, with the single exception of the period 1865-1869, always been greater during the periods of rising than during those of falling exchange. For the three periods of falling exchange the average annual value of revenue was Rs. 7$191 gold per head, and during those of rising exchange Rs. 8$302 gold.

If, however, the first two periods be eliminated, on account of the extraordinary expenditure of the Paraguayan war, and comparisons limited to the posterior periods, the result is even more striking. The average revenue and taxation is then only Rs.7$936 gold for two periods of falling exchange, against 9$545 gold per head for those of rising exchange, a difference of 20 per cent. in favour of low rates of exchange.

This reduction of the real value of taxation must correspond to either an increase of deficits to be made good in the usual manner by loans, or else to a positive reduction of local expenditure.

The periods during which the real value of revenue was greatest are those of 1870-1875 and 1886-1889, when exchange rose rapidly to *par*, and the average coefficients were Rs. 9$092 and Rs. 9$998 respectively. The coefficient of revenue fell to 6$898 gold in 1893, a rate lower than that of any previous year with the single exception of 1895 since 1870, although its nominal value estimated in currency had risen to the highest rate yet attained, Rs. 19$532 currency.

The fact that revenue, and consequently taxation, have diminished, proves little if the decrease is only the result of insufficient taxation and of the liquidation of deficits by loans; but if the shrinkage of revenue is accompanied by a simultaneous shrinkage of expenditure, it may fairly be concluded that a real economy has been effected in administration.

The coefficient for the periods of falling exchange posterior to 1870, (the close of the Paraguayan war) was Rs. 10$026 gold per head, whilst during the two periods of rising exchange it was Rs. 11$071 gold.

The actual expenditure per head in 1891 was Rs. 8$340, and in 1893 Rs. 8$319 per head, a rate that, with the single exception of 1885, represents the lowest rate of taxation for any year since the commencement of the Paraguayan war in 1864.

The coefficient of expenditure was Rs. 13$064 per capita in

1889, the highest rate attained with the exception of 1887, and fell gradually to Rs. 8$330 in 1892, and Rs. 8$319 in 1893 a reduction of 36%.

As it is notorious that since 1889 the general national expenditure has not been curtailed but rather increased in volume, whilst foreign expenditure has altered but slightly, this economy of 36%., in the real expenditure of the Nation can only result from a positive reduction in the real value of the internal local outlay, and is the consequence and the differential rise of prices; in other words, although paying higher prices if estimated in currency, the purely local expense of administration is effected at a greatly reduced value!

Every time exchange falls the nominal cost of the administration must rise, taxes increase, and the cry for economy goes up to heaven!

If the gratuitous advisers and advocates of economy had studied facts, they would not, perhaps, have been so ready to hunt up mares' nests and recommend impossibilities.

Let us institute a comparison between the actual financial situation and that of 1889, the year that is looked back on with general '*sandades*' as the golden age of Brazilian finance. Perhaps, after all, the reviled present will result not to be so black as it is painted, whilst some of the gilt may easily be rubbed off the halcyon past.

Total Expenditure in 1889.

	Rs. currency	Rs. gold.
Service of foreign loans National gold loans and guarantees.....	32.079:037$	32.079:037$
Interest on the internal debt payable in currency (apolices)	19.079:669$	19.079;669$
Total value of fixed payments...	51.158:706$	51.158:706$
Other foreign Goverment Expenditure..........................	5.000:000$	5.000:000$
Balance available for all other local Expenditure...............	130.007:753$	130.007:753$
Total expenditure: Exchange 27d. *par*;...........................	186.166:459$	186.166:459$

Total Expenditure in 1893.

	Rs. currency	Rs. gold.
Service of foreign loans, National gold loans and guarantees.....	78.259:063$	33.333:095$
Interest of the Internal debt payable in currency.............	13.330:789$	5.688:916$
Total value of fixed payments...	91.589:852$	39.022:011$
Other foreign Expenditure (same as 1891)	23.478:909$	10.000:000$
	115.068:761$	49.022:011$
Balance available for all other local Expenditure................	183.790:132$	78.270:957$
Total Expenditure: Exchange $11\frac{15}{16}$d...	298.858:893$	127.292:968$

In 1889 exchange stood at *par* and, consequently, real and nominal values coincided. In 1893 it had fallen to $11\frac{1}{2}$ pence.

If then all prices had risen uniformly in the same proportion as that of bullion and exports, the cost of the purely local expenditure, exclusive of all fixed payments, must have also risen proportionately, by 134.4°/., and from Rs.130.007:753$ in 1889 to Rs.304.738:173$ currency in 1893. In reality, however, local expenditure of this class did not exceed Rs.183.790:132$ currency, and the difference can only represent a positive economy, that has been brought about by the influence of the differential rise of prices on the cost of administration. In other words, whilst the nominal or currency cost of all foreign expenditure has risen 134.4°/., that of purely local expenditure not comprised in fixed payments has increased only 41.3 per cent!

With the best will in the world to economize there are certain fixed payments that admit of no reduction. The service of the foreign and internal-gold debt exacts the same real value when exchange is as 10 as at 21 pence. Consequently as exchange falls the nominal cost of its service must increase proportionately.

In 1889 the burden of fixed gold payments on account of loans and guarantees amounted to Rs.32.079:037$ gold, and rose slightly to Rs.33.333:095$ in 1893, or only 3.9 per cent., whilst the ratio of fixed payments to total expenditure had risen from 17 to 26.1 per cent., which, unless compensated in other ways, must necessarily have resulted in the complete disorganisation of the financial equilibrium. As exchange falls either taxation and revenue must be increased or local expenditure must be diminished. If

revenue remained the same, for example, and exchange fell to 3d. the cost of the service of fixed gold burdens would *absorb the whole of the revenue and leave nothing at all for local expenditure !*

Fortunately, the notable and simultaneous decrease of the real value of the service of the internal debt payable in currency (apolices) afforded in 1893 an appreciable and indispensable relief. The shrinkage from Rs.19.079:669$ gold to Rs.5.688:916$ of this class of fixed charges was in part due to the conversion of a large quantity of 'apolices' into internal 4 per cent. gold bonds, but chiefly to the depreciation that the fall of exchange operated in the real value of their service. For this reason the real value of fixed charges in 1893 showed an important reduction from Rs.51.158:706$ gold to Rs.39.022:011$, which would have been still more accentuated but for the fatal mistake committed in 1891 of converting currency into gold bonds.

The returns for other government expenditure abroad for the year 1893 not having been obtainable (in Rio Grande) they have been appraised at the same rate as for 1891, at Rs.10.000:000$ gold which is 53 per cent. more than in 1889:

Deducting, therefore, the value of all foreign fixed payments from the total expenditure there remained a balance over in 1893 of Rs.78.270:957$ gold, which must have sufficed to liquidate all other local expenditure of every description, unless part remained unpaid. That class of expenditure demanded in 1889 the disbursement of Rs.130.007:357$ gold. If, therefore, it was satisfied in 1893 with a disbursement equivalent to only Rs.78.270:957$ gold, and the volume of the payments it represents had remained the same, their value must have experienced a corresponding depreciation.

One of two conclusions is therefore inevitable, either the rate of expenditure in 1889 was excessive, or in 1893 it was insufficient, and a real economy has been effected.

Taxation, however it may be levied, whether in gold, or currency or in kind, equally represents the amount of labour that is exacted by fiscal necessities from each contributor. If, for example, in 1889, when exchange was at *par* the State demanded the equivalent of ten days' labour per annum that yielded an aggregate value of Rs.186.165:589$ in gold, whilst in 1893 it only exacted labour to the value of Rs.128.292:968$, it is clear that, if the value of labour has continued constant, fiscal exigencies could be satisfied with the sacrifice of only 6-1 days in lieu of ten, and the difference would represent a real and positive remission or reduction of the burden of taxation as regards the mass of contributors, though it would not affect all alike.

This is, undoubtedly, what has taken place in practice; some

gain and others lose by every oscillation in the value of the currency, but the effect of a reduction in the real or gold value of national expenditure can only be to reduce the burden of taxation as regards the mass of contributors.

The class that must suffer most from a fall in exchange is that of creditors, especially the holders of State securities payable in currency, the nominal value of whose resources remains constant whilst taxation and expenditure have augmented. The recipients of fixed official incomes would follow next, and then with a considerable interval certain classes of wages, whilst exports and the protected industries would gain what the others lost and more still.

The local expenditure of the Nation comprises chiefly disbursements for public works, the purchase of merchandise and stores for support of its dependants, but principally of wages and salaries.

Economy in the first item can only be limited to abstention for the future from fresh undertakings, as the works actually in construction are mostly contracted-for and cannot, therefore, be abandoned or postponed without heavy loss. Which of the two remaining items would the Economists at any price then select for reduction? Surely not official wages or salaries, which already have to make 78$ go as far as 130$ did in 1889, and appear to have suffered enough for the good of the country. There only remains, then, to economize on the efficiency of all the public service by stinting it of indispensable accessories, or on the hunger and thirst of the servants of the State. Let them decide!

The Republic has been accused of many things, and extravagance amongst others, though facts do not yet bear out the accusation; nor does the reduction of taxation to a lower real rate than has been the rule for 23 years, with one single exception, redound greatly to its discredit.

Those who limit investigations to the consideration only of nominal values and of the rates of exchange, will be surprised to learn they are better off to-day, because the government of the country is carried on at a *much less real cost*, than in 1889!

To raise exchange to *par*, as was done in 1886-89, is a simple matter if one has gold enough! To keep it there is another matter, beyond the unassisted power or ability of the wiliest financier!

It may be objected that the reduction in the real expenditure is entirely fortuitous, the result of the accidental depreciation of its value and not of any initiation on the part, of the administration, and that if exchange were to go up again to *par* the expenditure in currency would remain the same, and, consequently

show an immense increase in both its real and nominal value compared with that of 1889.

This is not, however, quite correct, or need not be so if the Government limited its expenditure to its present objects. If, for example, exchange were to rise to *par*, so suddenly as to admit of no fall in prices, there would be a reduction in the currency equivalent of part, and an increase in the gold equivalent of the rest of the expenditure, so that the total would then be Rs.242.730:452$, in place of Rs.186.166:459$, as in 1869, and identical in both gold and paper. If, however, exchange rose slowly, as it usually does, all prices must fall again in a similar manner to that in which they had previously risen, and the cost of purely local expenditure would be reduced again to the nominal value of 1889, when it was 130,007:750$. In this case the total expenditure would be only Rs.186,671: 683$ in both gold and currency, and almost identical with that of 1889 in spite of the increase of the foreign debt and of other government expenditure abroad, that was almost counterbalanced by the reduction in the rate of interest and amortization of the foreign debt effected by the conversion loan of 1889-90 and the conversion of 6 % '*apolices*' into 4 °/₀ gold bonds.

Practice, unhappily, belies this theory and proves that local expenditure in lieu of decreasing, as it ought, when exchange rises always increases.

Is the theory, therefore, false? No! what is wrong is the method of government, that reversing the tendency of Nature, which is said to abhor a vacuum, cannot bear to comtemplate a surplus without longing to spend it!

Governments, it is true, cannot prevent prices from rising when exchange falls, but can and do prevent part of them from falling again when exchange rises, by refusing to reduce the rate of wages and expenditure to its right level.

The increase of expenditure is simple and pleasant, and to a certain degree mechanical, its reduction is difficult and disagreeable.

Some balance must, however, remain over in consequence of even a partial fall of prices, but Governments quickly discover new necessities, and the appetite for spending *qui vient en mangeant* not only quickly gets rid of any excess there may have been, but actually obliges them to borrow or increase taxation to spend more! That is how deficits are perpetuated, and why exchange is more often falling than rising.

When exchange falls expenditure must be increased to meet the depreciation; and when it rises again to satisfy the demands of Progress!

Annual Expenditure. 1861—1893.

	ANNUAL AVERAGE EXPENDITURE Rs. CURRENCY	COEFFICIENT PER CAPITA Rs. CURRENCY
1861—1864	54.301:750$	6$636
1865—1869	126.594;311$	14$384
1870—1875	118.743:306$	11$737
1876—1885	148.944:911$	12$234
1886—1889	178.406:094$	12$858
1890—1892	254.812:601$	16$273
1893.	298.858:893$	19$532

This table is eloquent, and proves that we have not exaggerated! Only one solitary reduction of expenditure has occurred in 35 years, and that an insufficient one, for the period succeeding the Paraguayan War!

Fortunately exchange is not likely to go to *par* for many years, and we may thus be saved at least from the addition to normal expenditure that a repetition of the 'crisis of progress,' and of the 'ensilhamento' would inevitably create.

The financial success of an Administration should be guaged not by the comparative increase of nominal taxation and revenue when exchange falls, but by its reduction when it is rising. Judged by this standard few of the numerous governments since 1860 would escape censure!

Instead, then, of shutting the door when the steed has sped, and howling for an impossible economy when exchange goes down, let us pray for less shoddy progress, and insist on more real economy when it begins to go up again!

Returning to the consideration of the *bête noir*, Deficits, it will be seen that their origin may be resolved into:—

Excessive Expenditure	23.6 %
Differences of exchange..........................	22.7 %
Loss of revenue from duties on imports due to fall of exchange	53:7 %

More than half the deficits since 1860 could, therefore, have been avoided entirely by the recovery of duties on a gold basis.

This is not disputed, and has, in fact, been extensively treated in the report of the Ministry of Finance for 1891 by Dr. Ruy Barboso, but, in spite of the con-sensus of opinion on the subject, there appears to exist an insuperable and inexplicable repugnance to the collection of duties either in gold or what

would be better, in paper at the current rate of exchange as is done in Buenos Aires.

The following extract from the report of a parliamentary commission in 1888 on this subject ably demonstrates the necessity of placing the principal source of revenue on a stable footing.

"Our Country is like a colonial estate. Without manufacturing industries it can only export the products of agriculture and raw materials, which it receives again as manufactures of double the value. It likewise exports specie, not only because we are obliged to satisfy the interest on our foreign debt and on the foreign capital employed in the country, but also to supply the heavy expenditure of our countrymen living in Europe, parading their absenteeism and idleness. For this there is no compensation, because the foreigner does not come to Brazil to spend his income; on the contrary, by painful experience we well know what foreign capital employed in the country has cost us. Under such circumstances no country should import more than it exports. To it the old theory of the balance of trade must be rigorously applied, unpleasing as it may be to our economists, more conversant with European theories than observant of facts. The administrative Socialism that establishes industries in competition with private undertakings and with no responsibility as to their results, employing for this end the capital of the people, absorbing deposits, and mortgaging the future, exercises a pernicious influence on the economical situation of the country. The entry of the government in the market as a taker of exchange, without foresight or consideration for the necessities of the market, constitutes a perturbing element so evident that it requires no demonstration. The forced currency of paper-money—the emission of which depends on circumstances impossible to foresee, in view of the constant fear of sudden increase of that circulating medium which banishes real money without the substitute possessing that spontaneous elasticity which is indispensable to the commercial regulator—is in itself a danger and discredit. Let us point out one of the principal anomalies of this system that has not, hitherto, been properly appreciated.

Imported goods cost the consumer their commercial value (prime cost) *plus* the cost of delivery and customs' duties. The first item is subject to differences of exchange, because it is payable in currency. If exchange fall the first item increases but the latter decreases in a similar proportion. Consequently, the more exchange falls the less the duty paid on imports in

proportion to their cost will be, and as the value of duties is nearly 50 per cent. of that of the goods the difference is very considerable.

To take an example. Certain goods that cost £1 are subject to a duty of Rs.4$444, or 50 per cent., payable in paper-money at the rate of 27d. exchange. If exchange fell to 18d., these goods would cost 13$333 and still continue to pay only 4$444, or 33.33 per cent., when they should, in order to correspond with the 50 per cent. rate at which they are nominally taxed, pay 6$666!

This circumstance offers a wide margin to Speculation; it thus becomes profitable to the importer to pay the duties at a low rate of exchange and remit at a high rate. The importer, consequently, pays in advance the value of the duties if exchange is low, buying the depreciated paper requisite; and when a tendency of exchange to rise is observable, he remits, thus counteracting the tendency of exchange to improve. The only means of remedying this state of things is by the competition of local industries. These, unfortunately, are insignificant, and in consequence the consumer is constantly the victim of speculators, and the oscillations of exchange dependent on and created by importers constitute a danger that maintains our whole commerce in alarm. There is here a regular pathological circle; the depreciation of exchange does not reduce the importation of foreign goods in the proper degree when importation is inconvenient and exports insufficient; on the contrary, imports then receive a positive stimulus on account of the reduction that the fall of exchange operates in the real value of duties. From this springs the necessity of taking further exchange for payment of the excessive goods imported, and, consequently, a fresh fall of exchange. Moreover, as the Government must continue its payments abroad, receiving paper and paying gold, (the item differences of exchange increases daily in our estimates) its competition in the exchange market, when convenient to the abstention of other takers, is a commercial calamity. The cost of merchandize ought to regulate its consumption, but in order that it should do so it is necessary that the cost should be proportioned to economical circumstances. The difference we have pointed out disturbs this proportion, and, moreover, creates a medium favourable for speculation. In addition duties on exports are recovered in percentages of the market value, that is principally regulated by the rate of exchange. Precisely when importation is most inconvenient the Treasury favours it by receiving invariably the same amount in depreciated currency, and participates in the profits of producers, that then

receive more paper-money. This is the same as recovering duties on imports in paper and on exports in gold. We believe that this anomaly is one of the causes of the failure of our automatic regulator. The means to obviate it appear to be the recovery of all duties at *par*. If this were done imports would then exactly obey the requirements of the market, and would be restricted exactly to the means of payment. Oscillations of exchange would be reduced to regular and determinable causes, especially if the Government were to seriously undertake to balance its revenue and expenditure without incurring new loans to satisfy ordinary expenditure, and were to abandon all attempts at improvements of doubtful utility.

Applying the excess of revenue derived from duties to the substitution of the paper currency or exacting their payment in gold, forced currency would quickly cease."

This really able document recapitulates in a few words the principal factors of the depreciation of the National Currency, and, with the exception of certain appreciations of cause and effect with which it is impossible to agree, are in accordance with our previous conclusions, and especially so as regards the injury that the custom of recovering duties on imports at their *nominal* instead of their *real* value inflicts on the revenue.

If, however, all countries were to follow the advice of the protectionists and produce all they required at home and abandon the consumption of what they cannot produce, they could neither export nor import anything at all.

No country *can* import for any length of time more than it exports. The free-trade doctrine that has caused so much misunderstanding, and that pretends that the country which, like England, imports more than it exports is the most prosperous, must not be literally understood to mean that the source of prosperity is the actual excess of imports over exports, but rather that the fact that it *can* import more than it exports is a proof that it has other resources besides mere merchandize with which to liquidate the balance.

The misunderstanding is due to a mis-employment of terms. Exports and imports by long usage are terms limited to merchandize, but should properly include every kind of value, including bullion, securities, and promises-to-pay of every description; if this were done the theory of the 'balance of trade' would be unexceptionable.

It is true that neither Brazil nor any other country can long continue to import more than can be paid for; but before inveighing against the practice would it not be well to make sure of the facts?

To the observations in the foregoing report as to the effects of speculation in exchange we must, however, take exception absolutely.

Speculation, as we shall have occasion to show later on, can effect no permanent alteration in the value of the currency independently of some real cause.

If, then, the importer, who having paid the duties on his imported merchandize at a low rate of exchange, waits until exchange goes up before he remits the value of the goods, he will thereby have refrained from increasing the demand for bills in the meanwhile, and either have cooperated in this manner in the rise or prevented a further fall of exchange. If when exchange goes up he enters the market as a taker, the increased demand will tend to lower exchange again precisely in the same ratio as his abstention had previously tended to raise it. If, forseeing some real cause for an improvement in exchange, such as a foreign loan or increase of exports, he waits his opportunity, he will but gain by his superior prescience an advantage that will be common to all in the general appreciation of all fixed values that must ensue. As, however, even importers are not omniscient, they as often make mistakes as not, and if exchange were to fall instead of rise, they will be injured, not only by having paid their duties at a higher rate than others, but also by having to remit at a lower rate of exchange.

Another cirumstance has been overlooked. Even the recovery of the whole of the duties on imports in gold or at *par* exchange would not entirely destroy the advantage conferred on imports by a fall in exchange; because, as has been already pointed out, the purely local part of their cost, even exclusive of duties, does not increase in the same ratio as the price of bullion and of exports; and, consequently, unless there were a positive and proportional real *increase* of duties every time exchange fell, the demand for imports would still continue excessive and would not obey exactly the "capacity of the market," or be "restricted in an exact ratio to the means of payment," as the Commission imagined.

With respect to the application of the excess of revenue anticipated from the recovery of duties in gold no objection can be made. Of course the reduction of the quantity of paper-money in circulation by these or any other means must proportionately improve its value. It is, however, curious to observe Dr. Ruy Barboso endorsing an opinion which a few pages back he so energetically combated. It is not, however, with the method of application of the product of such a virtual increase of duties with which we have to deal at present, but merely with its effects

on the value of the currency, and in this respect we are in complete divergence with the opinions expressed.

In order to effect the payment of duties in coin this must be either imported, and thus swell the demand for bills precisely in the same manner as if the whole value had been taken in exchange by the government itself, or else the gold must be purchased in the local market. In this case its price must rise to a premium equivalent at least to the cost of importation. The local stock would, however, be quickly exhausted, when either fresh supplies must be imported or the government stock thrown on the market. In any case such a system must, so long as international exchanges continue unfavourable, result in a permanent accession to the demand for bills of exchange and further depreciation of the currency.

So long as the gold were stored in vaults it would exercise no influence on the currency, but when brought again into circulation it would tend to improve the rate of exchange in a somewhat less ratio than that in which it had been previously depressed by its importation. No gold, however, could remain in the country, except the necessary quantity for the liquidation of duties, and even that would require to be constantly renewed, unless the balance of international payments were favourable to the country. To attempt to retain large quantities of gold on any other terms is labour lost!

DUTIES RECOVERED IN CURRENCY VALUATION OF IMPORTS AT 24d.	Rs. gold	Rs. currency exchange 11½d
Value of imports in Custom House	256.192:000$	601.538:816$
Duties actually recovered including surcharges		196.305:000$
Total value of imports duty paid.		797.843:816$
DUTIES IF RECOVERED IN GOLD ON SAME VALUATION OF IMPORTS		
Value of imports in Custom House	256.192:000$	
Value of duties actually charged recovered in gold, if exclusive of surcharges.....................	196.305:000$	
Value of imports duty paid......	387.196:070$	= 609.136:491$

By the above table it will be observed that were the duties recovered in gold in lieu of paper the cost of imports duty paid

would be raised 13.9 °/₀ from 797.843:816$ to 909.136:491$ paper. It is probable that such an increase in the cost would affect the consumption of imported goods and thus prejudice revenue, so that it is quite possible that the falling off of consumption might balance the increase derived from duties, and that no absolute increase of revenue would occur. Even if this occurred, so long as the value of exports was not similarly affected, the difference might be compensated by an internal tax on national industries benefited by the increase of duties; and, in any case, the advantage of being able to estimate with precision the real value of the most important factor of the revenue would counterbalance any temporary inconvenience it might create.

It must, however, be borne in mind that National expenditure is payable partly in gold for external obligations and the service of the internal gold debt, but the greater part in paper for internal disbursements. The recovery of all duties on imports in gold would, therefore, not only unnecessarily raise their cost, but would prove as inconvenient to the administration if exchange were to rise, as the present system of recovery wholly in currency does when it falls:

If duties were recovered wholly in gold or in currency at the current rate of exchange—as is the custom in the Argentine Republic, where imports payable in gold constitute more than 80°/₀ of the total revenue—there would be an excess whenever exchange fell and a deficit of revenue to meet expenditure when it rose, because the moiety intended for meeting local expenditure would not in this case produce the necessary equivalent in paper-money.

According to the system of valuation of imports at 12 pence to the milreis adopted in 1896, in lieu of 24d the previous basis, if the same scale of importation continued in 1896 as in 1893 the revenue obtained from this source would be double that obtained in 1893, exclusive of the surtaxes that have been abolished. In 1893 the revenue obtained from imports was Rs.169.005:000$, or exclusive of surtaxes 131.004:000$. In 1896 this would be raised to Rs.262.008:000$, which at the current rate of exchange, 10d, would represent Rs.97.038:000$ gold. The metallic expenditure of the country is about Rs. 40.000:000$ gold for payment of the service of all foreign and internal loans-payable in gold, guarantees to Railways, and other foreign expenditure. Consequently, if 41.2 °/₀ of the duties on the present valuation of imports were recovered in gold, this would ensure sufficient revenue to meet all metallic engagements, whilst the balance of 58.8 °/₀ collected in currency would also satisfy the internal expenditure equivalent to Rs.154.008:000 paper.

The original proposal to recover duties on the old basis of valuation of imports 24d., and at the same rates exclusive of the surtaxes, would result in taxation being greatly in excess of what is really requisite. On this basis the receipts from imports, if similar to 1893, would yield Rs.131.000:000$ gold, of which only Rs.40.000:000$ would be needed for metallic payments, leaving 91.000:000$, equivalent at 10d. to 245.700:000$ currency, for internal expenditure, or 91.000:000$ more than the amount estimated as requisite.

Supposing, however, that exchange were to rise to 20d., the balance disposable for internal expenditure would be reduced from 245.700:000$ to 136.500:000 paper.

Excessive or unnecessary taxation is as objectionable as insufficient. To obtain a permanent equilibrium of the National finances and to ensure revenue being neither too great nor too little, it appears indispensable that the necessary proportion of import duties should be levied either in gold or at the current rate of exchange, as done in Buenos Aires.

In his Report of 1893 Dr. Felizbello Freire, the then Minister of finance, makes the following observations. "The only decisive remedy for the anomalies and instability of exchange, the oscillations of which in our country obey rather the caprice of unscrupulous usury than the effects of economic laws, is the recovery in gold of duties on articles of consumption, not temporarily as in 1867 and more recently in 1890, but perseveringly, until we have thus prepared the way for a metallic circulation, and rescued the Treasury from surprises in taking exchange for foreign expenditure. By means of such a fiscal measure, which may be compensated as far as it affects the class that supplies the gold by suppression of the additional duties, we shall then have succeeded in creating a flow of gold to our market, and there by avoided tho enormous sacrifices that differences of exchange cost the State!"

Thus, Dr. Felisbello Freire, the Special Commission, Dr. Ruy Barbosa, and almost all other authorities on the subject have fallen into the common error of imagining that gold can be imported without cost, and retained in the country without difficulty by the simple plan of recovering the duties in gold.

They have failed to perceive that unless sufficient gold exist in the country it must be imported, and that its payment in bills must affect the rate of exchange precisely as if the Government itself had been a taker for its equivalent.

It has been already shown why no gold can be retained in the country so long as the balance, not only of trade itself, but of international payments of all kinds is unfavourable. If,

then, this balance were not previously realized the necessity and cost of importing bullion for the payment of duties could only increase the annual international debit (passivo), and would, unquestionably, result in still further depreciation of the currency.

The amount of exchange taken by Government for payment of foreign obligations does not exceed $\frac{1}{10}$th of the whole annual international debit (passivo), and must always form but a fractional part. The withdrawal of the Government from competition in the exchange market would cause no decrease in the demand for bills so long as the gold must be imported but, on the contrary, there will be a positive increase equivalent to the cost of importing bullion, of at least 0.80 °/₀. Importers will, therefore, have simply taken the place of the government, and any risk or losses will be merely shifted to their shoulders, with no possible advantage as far as the improvement of the value of the currency is concerned.

The demand for gold for payment of duties would retain in the country the quantity necessary for this object; the rest would have to be shipped abroad at the expense of the State, and would cost another 0.8 %. No results are attainable by the policy of obliging importers to pay duties in actual gold coin that could not be equally well obtained, without so much unnecessary trouble, by simply throwing the equivalent of freight and insurance into the sea, and then remitting in the usual manner.

It seems incredible that no other resource to combat speculation, the *bête noir* of all Ministers of finance, other than importing bullion only to immediately re-export it, should appear feasible when the daily practice of well conducted business houses clearly indicates the system which should be followed in regard to foreign payments.

It should be borne in mind that what injures trade and the general interests of consumers is neither high nor low, but fluctuating exchange.

Speculation operates as often for a rise as for a fall in exchange; and, although one is really as pernicious as the other, it is only when the speculation for a fall appears to have been successful that it is denounced, whilst the equally injurious speculation for the rise, being advantageous to the Government and enabling it to make remittances on easier terms, is rather applauded than otherwise as a patriotic effort to raise the value of a purely national product—the currency.

If, on the one hand, the State is sometimes the loser by the machinations of speculators, the action of the Government by

its competition in the exchange market must often prevent speculators from having it all their own way; and if speculation is as powerful and injurious as it is depicted, it seems probable that it will not be less so if left entirely to itself, and is no longer controlled by or subject to the powerful influence that the action of the Exchequer can bring to bear against it.

The collective action exercised by the Government would be impossible when delegated to the mass of importers spread all over the country.

If returns were obtainable detailing the different rates at which exchange was actually taken by the Government during any single year, it would probably result that the average rate obtained would correspond very nearly with the average market rate and, therefore, the natural rate; and if it did not, it would be because the purchases had not been uniformly distributed.

Moreover, the demand for gold would inevitably give rise to another speculation in bullion; and in this manner importers would not only have to resist unassisted the speculation in exchange, but maintain another conflict with the monopolizers of bullion.

Speculation may, it is true, cause great inconvenience and even loss to the State by lowering the rate of exchange precisely when the Government requires to remit, and *vice-versa;* but that this were possible indicates, rather, a want of foresight on the Government's part, that by its incautious and unbusiness-like methods, makes it easy for speculation to rig the market. The periodical taking of large quantities of exchange must make it particularly easy for speculators to create an artificial scarcity of bills by which the State must suffer if its remittances cannot be postponed. If instead of periodical purchases Exchange were taken regularly and uniformly, if possible for a daily fixed amount, speculation would be defeated in its attacks on the Treasury, at least, as any artificial fall must be followed by a corresponding rise, and any loss realized on one operation would be compensated by a profit on another, and thus a fair average would be attained that would correspond to the real medium value of exchange during the year.

The alternative proposal of recovering duties on imports in bills of exchange, in lieu of gold, would be preferable in so far as it would eliminate the necessity and useless waste entailed in importing bullion or specie only to be immediately re-exported, but would equally fail either to effect any improvement in the rate of exchange or to check speculation. The payment of duties in bills of exchange must diminish the market supply

by the amount thus withdrawn, and, consequently, must exercise a precisely similar effect as if the government had entered the market as a taker for their equivalent.

Speculation, moreover, cannot affect the rate of exchange in such a manner as to increase the average cost of remittances for payment of the foreign liabilities of the country, or as cannot be easily counteracted in the manner just described.

The distribution of the precious metals obeys precise and unalterable rules of supply and demand. To imagine that by mere legislation this current can be deviated and directed hither and thither denotes the failure to grasp the principles that regulate its distribution. These principles may be summarized in Ricardo's memorable words. "Gold and silver have been chosen for the general medium of circulation; they are by the competition of commerce distributed in such proportions amongst the different countries of the world as to accommodate themselves to the natural traffic that would take place if no such metals existed, and the trade between countries were purely a trade of barter."

The collection of duties on imported merchandize, either in gold or on a gold basis in currency at the exchange of the day, appears to be an urgent fiscal necessity.

It is, however, well, whilst recognizing this necessity, to disabuse our minds of the illusion in regard to the results of such a measure engendered by the teachings of almost all local authorities that have treated the subject.

Such a measure, though requisite to ensure the financial equilibrium, can be of no assistance in the accumulation of gold in the country or for the renewal of specie payments unless it correspond with an improvement in the balance of our international payments, and thus secure a readjustment of the natural distribution of the precious metals as regards this country. Without this indispensable preliminary gold may be imported in millions only to emigrate again as fast as it arrives.

The influence of Speculation on the value of the currency.

Speculation, whether directly in exchange itself or in commodities, will exercise no independent or separate action on the ultimate course ef exchange further than reducing or exaggerating the period over which the effects of the variations would be otherwise felt.

A temporary rise or fall of exchange, created exclusively by speculative operations without any real cause for their basis, will leave no permanent impression because its effects must be compensated by the fall that will occur when speculators commence to realize.

Speculation, for example, on imported goods may by unduly increasing the demand for bills cause a fall in exchange, that will, however, be recuperated by the posterior reduction of importation until the quantity of imports again balances the demand.

Speculation in exports would merely raise their cost to the exporter and not sensibly affect their quantity; so that there would be no falling off in the quantity of bills offering unless the object of the speculation was to influence exchange directly by witholding bills. When, however, these bills came to be realized they must affect exchange favourably in precisely the same manner as their withdrawal from the market had previously depreciated it.

No commodities that are largely dealt-in can long escape the influence of speculation; and bullion, which is the medium of the barter that operations in exchange represent, as well as the bills of exchange themselves form no exception to the rule, especially in those countries where the currency consists of inconvertible paper, and where, in consequence, the oscillations of value are greatest and offer greater opportunities for realizing extravagant and immediate profits.

On the contrary, operations in gold, as carried on in Buenos Aires, or in exchange as in Brazil, offer peculiar attractions to the speculator, as the laws that regulate their oscillations are pretty well comprehended, and the circumstances likely to cause such variations ascertainable, whilst commodities of prime necessity, which with stocks and shares absorb the attention of speculators in most other countries, are subject to infinite contingencies that often defy the most prudent calculations.

Speculation in gold or exchange has, moreover, the advantage of being easily and rapidly liquidated by a single operation.

Speculation has always been the *bête noir* of Society, that since its first existence has vainly attempted to distinguish between legitimate and illegitimate speculation or *gambling;* because the vice, whatever it may be termed, originates in the artificial constitution of Society itself.

In theory speculation and gambling are distinct, but in practice the methods of one and the other are identical.

In his "Traité elementaire des operations du Bourse" M. Courtois states that:—"The rise and fall of prices proceeds from variations of the two ratios of a deal, the ratio of the supply and the demand to each value: every alteration *should* be due to a modification, of the supply or demand, or of both at once." Operations that are founded exclusively on the probabilities of a rise or fall in prices dependent on natural modifications in the supply and demand are described as *legitimate* speculation, and are regarded as the well merited recompense of greater prevision and perspicacity, as well as of greater audacity. Operations that are not founded on the so termed 'natural' variations of supply and demand are deemed *illegitimate* and qualified as gambling.

Speculation is usually attacked for raising prices and thus injuring consumers, though it as often operates for a fall. At the present moment a lively campaign is being carried on in Europe against speculators in wheat and wheat-warrants, who are accused of being the cause of the excessive fall in the price of that cereal! Jules Domerke, in his recent work *La Revolution Economique* pretends that "Speculation is only honest that has for its object the raising to its true value of the price of a product insufficiently esteemed or excessively depreciated; and is then beneficial, stimulating commerce and industy; but in such a case this is not speculation as it is generally understood."

The aim of all speculation is to make a profit, that must be paid either by producers or consumers or both, by charging more than the goods cost, or paying less than they are worth. If such profits are immoral in one case they must be equally so in the other; whilst to attempt to distinguish between legitimate and illegitimate profits of this description reveals at once the impossibility of agreeing where one ends and the other commences.

The whole constitution of society is based on the legitimacy of such profits. If this be disputed there is no alternative but to accept the socialistic programme for the reorganisation of society by which all such profits 'legitimate' or 'illegitimate' would be excluded.

Apropos of this subject Max Nordau writes in *Les mensonges conventionelles*. "La spéculation est une des plus intolérables phéno. mènes morbides de l'organisation économique. Les profonds esprits, qui trouvent excellents tout ce qui est, ont cherché aussi à la défendre; ils l'ont jugée nécessaire, et se sont même enthousiasmés pour elle. Je vais montrer à ces panygéristes étourdis par quels principes ils sont entrés en vigueur. Le spéculateur joue dans la vie économique le rôle d'un parasite. Il ne produit rien, il ne rend même pas, comme le marchand, les services plus ou moins contestables d'un intermédiaire ; il se borne à enlever par la ruse ou la violence aux véritables producteurs la plus claire partie de leur travail. Le spéculateur est un voleur de grands chemins, qui pour une mince indemnité, dépouille les vrais producteurs de leurs produits, et force les consommateurs à les lui acheter beaucoup plus cher. L'arme avec laquelle il assaille, comme un voleur de grands chemins, producteurs et consommateurs, est à deux tranchants et se nomme " hausse et baisse."

Chaque travailleur, sans exception, est tributaire du spéculateur. Tous nos besoins sont prévus, tous les objets nécessaires au consommateur sont achetés d'avance à crédit par la spéculation et nous sont revendus au comptant le plus cher possible. Nous ne pouvons pas manger une bouchée de pain, reposer notre tête sous le toit hospitalier, placer quelques économies sans payer au spéculateur une contribution sur les céréales, les terres, les maisons et les valeurs de Bourse. L'impôt que nous payons à l'Etat est suffisament lourd, bien moins, cependant, que celui auquel nous soumet la spéculation. On a essayé de défendre la Bourse comme une institution nécessaire et utile. C'est simplement monstrueux! Quoi? La Bourse est utile et nécessaire? S'est elle donc jamais renfermée dans les limites que lui assigne la théorie? A-t-elle jamais été simplement le marché où l'acheteur de bonne foi rencontre le vendeur de bonne foi, où une demande honnête et une offerte sincère se balancent l'une et l'autre ?

Comparer la Bourse à un arbre vénéneux est une image trop faible et incomplète, car elle ne rend sensible qu'un côté de son action. La Bourse est une caserne de brigands dans laquelle les modernes héritiers des chevaliers-bandits du moyen-âge s'établissent et coupent la gorge aux passants. Comme les chevaliers bandits, ils s'arrogent le droit de rançonner le marchand et l'artisan ; plus heureux que les chevaliers-bandits, ils ne se risquent pas d'être pendus haut et court s'ils sont surpris dans leur œuvre de coupeurs de bourse.

Les défenseurs de la spéculation disent : Le spéculateur a dans le drame économique un rôle légitime, son gain est la récompense

d'une plus grande perspicacité, d'une plus sage précision, d'un jugement plus rapide et d'une plus grande audace.

L'argument mérite que nous le retenions. Ainsi donc, parce que le spéculateur dispose des moyens d'information inaccessibles au grand public, parce qu'il redoute moins les pertes que l'homme honnête qui économise, et parce qu'il évalue les possibilités de toutes sortes plus habilement que celui-ci, il a le droit de dépouiller le travailleur du produit de son travail, et d'entasser des richesses tout en restant oisif! Ce droit repose donc sur ce qu'il a de meilleures armes—des informations; un plus grand courage—celui de mettre en jeu l'argent d'autrui; une force supérieure—celle du jugement et de l'intelligence. Mais alors, admettons un peu que les prolétaires aient encore de meilleures armes—fusils à répétition ou bombes de dynamites; qu'ils aient encore un plus grand courage—celui de risquer leur vie; et une force encore supérieure—celle des muscles et des os. En ce cas les défenseurs de la spéculation devront reconnaître aux prolétaires le droit de dépouiller à leur tour les spéculateurs, ou bien la théorie par laquelle ils cherchent à légitimer la spéculation est un mensonge."

Unless we are, therefore, prepared to accept such teaching, and to limit our profits to the 'legitimate' fruit of our individual labour, denunciation of speculation would seem to be in absolute contradiction to our practice and rule of life, and to lack the essential necessary to secure success—sincerity.

There is, however, another phase of speculation that the socialists usually overlook. M. Ferry Beaulieu writes in the 'Temps' in regard to the speculation in wheat, which was then, as now, exercizing the Parisian mind.

"La spéculation, qu'on ne l'oublie pas, est la concurrence, l'essence même du commerce. La vérité économique, c'est qu'il faut chercher à réduire les frais généraux qui pèsent trop lourdement sur certaines marchandises. Or cette réduction ne peut se faire que par l'entente des producteurs et des consommateurs, ou par la constitution de grandes entreprises, qui traitant par masse réalisent des économies énormes sur les transports et sur les manutentions. Or, qui a permis la constitution de fortes maisons d'exportation, sinon l'éventualité de realiser un gain? Dès qu'ils prévoient qu'un pays aura une mauvaise récolte de céréales, ces importeurs prennent leurs dispositions pour satisfaire les demandes éventuelles, si bien que depuis de longues années, dans les pays civilisés tout au moins, la famine, cette plaie d'un autre âge, a complétement disparu. Voila ce que la spéculation a permis de faire et le courtage de ces intermédiaires a été, en somme, si peu onéreux que l'on a fait une vive campagne afin de rétablir des droits protecteurs contre leur action."!

Speculation can only prove injurious to the general interests of producers and consumers alike when speculators are allowed to create monopolies. Such monopolies are in these days of competition impossible unless facilitated by partial and unjust laws. If allowed to operate freely, the sovereign law of supply and demand will triumph over all such pretensions. All, therefore, that can be legitimately expected of governments in this respect is that by their action, or by the action of ill-conceived legislation, the creation cf monopolies by speculation shall not be facilitated.

Passing from the moral aspect of the problem let us now examine the purely material and economical effects of speculation in exchange on the value of the currency.

The same train of reasoning applied by S. Mill to the analisis of the effect of speculation on the prices of articles of prime necessity is applicable to that in exchange.

Speculators in exchange by their wholesale purchases of bills create an artificial scarcity and consequent fall in the rate of exchange; and though in appearance such operations should yield large profits, in reality they are only apparent, and disappear as soon as the speculator commences to realize, unless some real cause beyond the mere speculative purchases of bills existed for the fall of exchange, which will rise again, precisely as it had fallen, and probably more; so that there will be no profit at all for speculators as a class, though some few, perhaps, by realizing before others may be benefited ; proving that in this case the profit must be realized at the expense of other speculators, and that in no possible case can profit accrue to speculators as a class by a purely artificial rise or fall in the rate of exchange. On the contrary, speculators will themselves have paid more for some part of their purchases during the rise, and will, moreover, run a considerable risk of a still greater loss, for the temporary high prices would have tempted others who had no part or share in the operation, and might otherwise not have found their way into the market at all to buy, and thus intercept a part of the advantages; so that, profiting by a scarcity caused by himself, the speculator is by no means unlikely, after buying in an average market, to be obliged to sell in a superabundant one, or *vice-versa.*

If, however, the speculation for a fall of exchange were based on some real cause independent of the fall created by the speculative purchase of bills, such as a failure in the coffee crop, then the profits that would be realized by speculators would be the result of superior judgment and foresight. Speculation for a fall in exchange in such a case would be founded on the anticipation of the alteration in the ratio of the supply to the demand

of bills of exchange, and, if by restrictive legislation such speculation were impeded, it would be simply transferred to the commodity itself, as it would be a matter of indifference, as far as the ultimate results of the speculation were concerned, whether a fall in the rate of exchange were first created by means of an artificial scarcity of bills to be followed by a rise in prices, or, operating directly on the staple in lieu of the medium of exchange, the rise in prices preceeded the inevitable fall of exchange.

If, however, as often happens, even when the speculation is founded on the most reliable information, the rise were exaggerated, speculators would become losers, and the public gain the equivalent of their losses.

Speculation can only anticipate and not control results. Any artificial rise in exchange must be followed by a corresponding fall when not based on real causes, and the only sufferers in such a case will be the speculators themselves.

The only inconvenience suffered by the public at large by a permanent rise or fall in exchange originated by speculation and, therefore, founded on real causes and inevitable in any case, would be that the speculative sales or purchases would have caused a premature rise or fall, and thus spread the effects over a longer period, thus mitigating them at the climax.

S. Mill states that a permanent and general rise or fall of prices, such as must result from oscillations of exchange, will not cause a lasting benefit or injury to any one.

This, however, is not the case with an inconvertible currency, when every alteration in its value must disturb the relations of debtors and creditors. Every rise in the rate of exchange must confer an advantage on creditors at the expense of debtors, and *visa-versa*; whilst producers and exporters will, in consequence of a fall of exchange, not only command a higher price for their produce, but also a higher *value*, and the contrary occur if exchange were to rise. Importers who, in consequence of a fall of exchange were obliged to pay more for their merchandize, would also sell them for more, and *vise-versa*.

The labouring classes in common with unproductive consumers, who cannot adjust their receipts and expenditure to rapid fluctuations of exchange, must certainly suffer from an artificial, and, therefore, transitory rise of exchange and the consequent rise of prices of most commodities, so long as the rise in exchange lasted; and, although it is true that the only permanent real loss will in such a case fall on speculators themselves, yet it cannot be denied that individuals and whole classes may suffer severely from such oscillations. As, however, a speculation for

a fall of exchange, unless founded on real causes, must be followed by a corresponding rise, the injury inflicted by one will be compensated generally by the other, but not in many cases individually.

It is, however, only on such considerations that special measures directed against this particular form of speculation can be justified. All and every variation in the value of the currency must be mischievous and inflict injury and loss on some one, besides producing a general feeling of insecurity inspired by the precariousness of engagements. But these effects are not solely produced by speculation in exchange, and may be, and are, equally created by speculation in the staple exports themselves, and still more so by the direct action of the Government; so that, to be logical, not only should all speculation of every kind be prohibited, but the administration itself should be prevented from interfering with the currency and influencing exchange, which is impossible even if the control of the circulating medium ceased to be a government function.

Speculation in exchange is only more odious than any other class of speculation because its effects are more direct, more immediate, and, consequently, more apparent.

Unless, therefore, it were determined to wage a campaign for entirely moral considerations against all kinds of speculation, in which what are yet deemed *'legitimate'* profits must be eventually included, the advice of S. Mill in regard to speculation in articles of prime necessity appears particularly appropriate.

"The interest", he says, "of speculators in general coincides with the interest of the public, and as they can only fail to serve the public interest in proportion as they miss their own, the best way to promote one is to leave them to pursue the other in perfect freedom."

No speculation is liable to greater risks than that in exchange. The value of the currency depends on the constantly varying quantities of an almost infinite variety of elements; on the value of exports and imports, on the rate of national expenditure and the methods employed to meet it, on the increase of foreign imported capital and the reverse, and indirectly on men's passions and follies, and even on changes of the weather!

What speculator can possibly hope to reduce to their numerical equivalents such heterogeneous and contradictory factors? At best he can only pick out one or more of the most prominent, study its course, and form an approximate estimate of the effect it may exercise; calculations, however, that are liable to be upset by an infinite variety of circumstances which he has not and could not take into account.

A speculator, for example, that has laboriously collected all the available information regarding the probable value of the coffee crop, and come to the conclusion that it will be smaller than usual, anticipates a consequent fall of exchange and speculates accordingly. Whilst he is exulting over the probable profits of his superior perspicacity and judgment there occurs, perhaps, one of those uncalculable accidents to which such precarious speculations are liable; some powerful but hitherto quiescent factor becomes suddenly animated, and his careful calculation of probabilities falls to the ground like a house of cards. The government, we will suppose, unexpectedly negotiates a new foreign loan, or the price of coffee rises unexpectedly abroad and sufficient to compensate for the shortage in bills due to its decreased quantity, when our audacious speculator will think himself lucky if he escape without loss from what appeared to give a sure and certain promise of large profits; in this, however, he will be very unlikely to succeed, because even if exchange should not absolutely rise to a rate in excess of the average price of his speculative purchases, the expense incurred in interest and commissions would inevitably leave some loss.

Besides the normal contingencies to which speculation in exchange is liable from what L. Say terms *'la nature des choses,'* another artificial danger is created by the methods of the speculator himself. Speculation in exchange is usually carried on by purchase of what is not paid for nor ever intended to be delivered; liquidation being effected by the settlement of differences. The speculator purchases or sells to the banks a certain value in bills of exchange deliverable at a certain date, depositing a percentage in guarantee, which he is bound to increase if exchange goes against him.

As the Banks themselves fix the current rate of exchange, it is possible by a combination between them when the date of liquidation arrives, which is generally periodical, to manipulate the rate so that the true profit of the speculator will be considerably reduced, if there were any, or if there had been a slight loss, to exaggerate it in such a manner that his marginal deposit would entirely disappear. The only guarantee against such a combination lies is the number and character of the banks themselves.

The advantage in such operations seems to be decidedly on the side of the Banks, and it is amazing how speculators can be found audacious enough to accept not only the natural risks of such operations, but this chronic addition.

The recent proposals for the repression of speculation by means of taxation appear to be a mistake.

Any taxation of this sort is limited by the cost of importing and exporting bullion, and this is not sufficient to affect speculators, whose expectations of profits are usually on a gigantic scale.

It will, however, permanently affect the legitimate operations of Commerce; that is, the purchase or sale of exchange on time for actual delivery, and to cover liabilities really incurred payable at fixed dates. The taxation of time sales, though it would increase the revenue at the expense of speculators and is on this account unexceptionable, would also discourage legitimate operations of this character, and thereby exact the employment of a larger amount of capital in commercial operations, and consequently tend to raise the cost of both imports and exports.

A moderate tax on time sales will not much affect speculation, and if it were excessive or largely exceeded the cost of importing and exporting bullion, would prove counteractive; as, though the speculation in exchange might be abandoned, it would be simply transferred to bullion or to coffee itself.

The most recent instance of financial and economical disorganization which, having been created by methods almost identical to those that have provoked the *degringolade* in this country, are bound to produce similar results, is to be found in the Argentine Republic. The disastrous consequences of the forward policy in that country should, it would be imagined, have served as a valuable object lesson, to point a salutary moral to its immediate neighbours, and serve as an example of how the finances of a country *should not be administered!*

If, however, it is too late to cry over spilt milk, or to prevent the evils that almost unlimited emissions of inconvertible paper-money are bound to entail, at least we may profit by avoiding the same errors into which our neighbours have again fallen in attempting to remedy the disasters that have almost overwhelmed them.

In Buenos Aires, as in Rio Janeiro, repeated emissions of paper-money and extravagant expenditure have resulted in a violent and permanent depreciation of the national currency. Exchange in the Argentine Republic since 1884 has fallen 70 per cent., from 48d to about 14d; and in Brazil 67 per cent., from 27d to 9d, since 1889.

To satisfy popular clamour and divert attention from their own empiric and corrupt administration the Government of Dr. Juarez Celman selected as the scape-goat of its own shortcomings

Speculation; accusing it of systematically depreciating the currency.

In 1889 the first measure taken to repress this nuisance was to name an official liquidator on the *Bourse*; and as this produced no good effect it was followed by the prohibition of all time sales of gold, and finally the *Bourse* was closed altogether.

Gold, however, continued to rise and time operations to be effected from house to house with the responsibility of the customer in place of the broker's. In the course of a few weeks as this measure produced no good effect, but, on the contrary, gold continued to rise, the minister of finance, Dr. Varela, resigned, the *Bourse* was reopened, but time sales were still forbidden. After the lapse of a month or so even this restriction was withdrawn, and gold fell at once, the government retiring worsted and humiliated from the struggle!

The tremendous rise of the premium on gold in 1893 to 350 per cent. inspired the new government with the novel and popular idea of laying the blame on the foreign banks, which were accused of fomenting and participating in the speculation and of depreciating the currency in which almost all their own capital was invested! A commission was then appointed to examine the books of all the foreign banks with absolutely no result to substantiate the charge. This action of the Argentine Executive is of particular interest here as a similar chauvinistic and popular misappreciation is evidently latent in our community, which might at any moment urge the government to take a similar false step.

Attempts to prohibit speculation, which is contemporaneous with the birth of commerce itself, by means of repressive legislation have been made and abandoned in almost every civilized country. The repetition of such unproductive experiments only proves that collectively, as individually, we must all gain our particular experience, and can rarely, if ever, apply the object lessons that the experience of others supplies to avoid falling into similar errors.

The phenomenon known as *Confidence* is in reality, as far as exchange goes, merely an anticipation of some improvement or continuance of an administrative policy calculated to raise the value of the currency, whilst a *want of confidence* is its negation.

A hope or promise of retrenchment or of a reduction of the volume of the currency, for example, will create a beneficial effect on men's minds, and a tendency to anticipate events. In this manner increased confidence may result in a rise of exchange, whilst anticipations to the contrary will have an opposite effect. Neither one nor the other, however, can be permanent unless these anticipations are realized; in other words, unless the speculation

is founded on real causes. This phenomenon of confidence, and the obverse, proves how unconsciously we are all speculators and inclined to discount the future!

Speculation is natural, inevitable and irrepressible, because it is the expression of the most valuable of our characteristics, the hopefulness of human nature; and will continue to be so until our moral development destroys even the desire to enrich ourselves at the expense of others, and altruism becomes the rule of life; a possibility that does not appear to have any immediate probability of realization!

In the meantime, therefore, as it does more good than harm, and even the harm it does is chiefly to itself, the best course to pursue is to let it severely alone!

National Industries.

For fiscal reasons it is not only manifestly impossible at the present juncture to reduce the duties on imports, but it is extremely probable that necessity or convenience may exact a positive increase.

Such an increase, however, would be as illogical as impossible if its only result is to defeat its object, and to merely increase the profits of National '*protected*' industries at the cost of the revenue and of consumers!

The present system of periodically increasing the percentage of duties on imports, by means of surtaxes as exchange drops, has been shown to be ineffective; as it is impossible to be constantly altering tariffs, and the only alternative, the recovery of the whole or part of the duties at *par* exchange, to be the *sine qua non* of a permanent equilibrium of Revenue and Expenditure. Apart from these considerations there can be no doubt that the present system of appraising duties is as unfair to National Industry itself as it is injurious to Revenue.

The following table shows the value of duties actually recovered, and their value if recovered at *par* exchange. (1894)

	VALUE OF DUTIES ACTUALLY PAID INCLUDING SURTAXES	EQUIVALENT OF DUTIES IF PAID IN GOLD	LOSS	RATIO OF LOSS TO PAR VALUE, OR ACTUAL REDUCTION OF DUTIES
	Rs. currency	Rs. currency	Rs. currency	
1890	98.477:694$	117.523:280$	19.045:586$	10.15 %
1891	104.097:613$	172.289:877$	68.192:264$	36. 1 %
1892	187.876:587$	245.339:287$	87.463:700$	35. 6 %
1883	189.439:552$	301.446:528$	112.006:976$	37.1 %

The reduction in the real percentage of duties on imported merchandize in 1890 was 10.15 per cent. of the real value it should have paid had exchange remained at 27d.; and increased to 36.1 per cent. in 1891, and 37.1 per cent. in 1893!

A reduction of 37 per cent. in the duty on foreign imports must seriously affect the position of many, if not of all, National Industries. A manufacturer that initiated an industry, for example, with the guarantee of a protective duty of 50 per cent., would see that duty reduced to 31.45 by the action of the fall of exchange, and very possibly would be quite unable to compete on such terms.

The increase of certain specific duties on imported goods in 1890 was the deliberate outcome of the 'protectionist' policy then adopted. The duties levied by the former, or *Belisario,* tariff were judged insufficient, and raised in many cases 50 per cent. in order to enable local manufactures to compete successfully with imported merchandise.

The effect of the depreciation of the currency on the real value of the duties recovered has, however, completely destroyed the advantage thus conferred, and reduced the actual rate of duties to a lower average than even that of the despised tariff of 1887, in spite of consecutive surtaxes of first 50 °/₀, and then 30 °/₀ more charged on the majority of imported goods!

The average percentage of import duties of the *Belisario* tariff in force until 1890 was 43 °/₀, and that of the new tariff 44 °/₀. (Dr. Barbosa's.)

Had all classes of goods been uniformly imported in the same proportion as in 1889-1890, the real value of the duties actually recovered in 1894 would represent a positive decrease of 38 % compared with the *Belisario* tariff!

	Pence	Pence
Under the old (Belisario) tariff the average duty of 43 % on goods of the value of 1$000, with exchange at *par* would be..............		11.610
The actual duty (1894) as per the new tariff is 44 % which on 1$00.0 at the exchange of 10d is	4.40	
Plus a Surtax of 50 % levied on ¾ of goods imported..........................	2.20	
	6.60	× ¾ = 4.950
ON THE REMAINING ¼ OF GOODS IMPORTED THE FOLLOWING DUTIES ARE CHARGED		
Duty 44 °/₀ as per tariff on 1$000 at 10d exchange..	4.40	
Plus additional tax on certain classes of goods...	1.32	
	5.72	
***Plus* Surtax 50 %**	2.86	
	8.58	× ¼ = 2.145
Total actual average duty including surtaxes, etc..		7.095
Deduct this from average duty of the *Belisario* (1877) tariff..................................		11.610
The balance represents the reduction equivalent to 38 % operated in the real values of duties by the fall of exchange from *par* to 10d..		4.515

It becomes an impossibility for the manufacturer to estimate the real cost of the imported goods with which he must compete when the value of the duty varies with every oscillation of exchange, as the following examples of two articles largely produced in the country and also imported demonstrates.

		Pence
Jute sacking, or *Aniagem* in 1889 paid duty at the rate of 60 °/ₒ or 0$300 per kilo, which at 27d is equivalent to		8.1
It now pays according to the tariff of 1890..................................	Rs.0$300	
+ 50 °/ₒ surtax............................	„ 0$150	
Equivalent to 33.36 °/ₒ *ad valorem*	Rs.0$450 at 10d exch'ge.	4.5
Leaving a difference of..		3.6

Which is equivalent to a reduction in the real value of the import duty of 44.4 °/ₒ !

Again:—The duty on cloth (*cachemira*) was, in 1889, 60 °/ₒ or Rs.4$200 per kilo equivalent at 27d exchange to.....		113.40
To day the duty per tariff of 1890 is....................	Rs.4$200 per kilo	
+ 30 sur-tax......	„ 1$260 „ „	
	Rs. 5$460 „ „	
+ 60 % increase.............	„ 3$276 „ „	
Total..................	Rs. 8$736 per kilo at 10d exch' =	87.36
Leaving a difference of..		26.04

equivalent to a reduction of the duty on cloth by 22.9 per cent !

If, then, a manufacturer counting on a specific advantage afforded by the tariff equivalent to 60 per cent. duty on foreign imported goods, both jute and cloth, finds this advantage reduced suddenly to 33.3 per cent. for jute and 46.26 per cent. for cloth, it is probable that unless he can obtain compensation in some other way (by reducing wages for example) be would be unable to continue to compete at all with foreign imported goods, as such enormous differences would upset the most careful calculations !

This effects of the recovery of duties in currency of oscillating value, together with the uncertainty as regards the *permanency* of the protective policy, is probably the cause that has hitherto deterred European capital from being largely employed in the manufacturing industries in this country.

Looking at the matter even from a purely *Protectionist* point of view, it is unquestionable that an *uniform and unvarying tariff*, that can only be obtained by the appraisement of duties *on* a gold basis, is an essential condition of the rapid development and prosperity of most national manufacturing industries, and that the normalisation of duties in this manner would be as advantageous to industry as to revenue, whilst it would put a stop to the constant and often well founded complaints and increasing demands for further protection, which are not always equally legitimate or reasonable.

The recovery of duties in gold, or at the *par* exchange, would be equivalent, as has been already pointed out, to an increase of 37 to 38 per cent. of the duties actually charged including the surtax. Such a measure must favour immensely *National* industries at the expense of imported goods, and consequently of revenue.

Unquestionably, some of these industries are in reality suffering from the reduction that the fall of exchange has brought about in the real value of duties, and it would be only equitable that they should be allowed to take advantage of any opportunity to return to the indispensable *statu quo*. There are, however, many other industries, and these by far the most important and not the least importunate, that do not require, nor in fact have required for many years, any extension of favours from the State, as is proved by their ability to continue paying large and increasing dividends in spite of the reduction of duties caused by the fall in exchange to a rate even less than that at which they stood previous to the increase of the tariff in 1890. Such industries have unquestionably, received their *quantum suff* of protection, and should not be permitted to further increase their already bloated profits at the expense of revenue whenever fiscal necessities render an increase of duties imperative.

Without entering on the discussion of the vast subject of the relative advantages of *protection* and *free-trade*, it is to be presumed that even the most enthusiastic advocates of protection do not pretend or desire to afford more than *sufficient* assistance to National industries, and such as will enable them to compete on fairly profitable terms with similar foreign imported commodities; any exaggeration of such a policy beyond this point, that could only result in enhanced profits for a certain and very restricted class at the cost of all consumers and to the decided detriment of revenue, would be simple spoliation.

The fact that most of the National Industries that were already in operation previous to the increase of the duties by

the Provisional Government in 1890 were then and continue to be extremely prosperous, proves that the protection they receive from the tariff is amply sufficient to secure the legitimate objects of protectionism, and that any further increase of privileges is in their case both unnecessary and impolitic.

The following extract from a letter published in the *Diario do Rio Grande* by a well known and most successful native manufacturer confirms these conclusions. "I believe, as I always have believed, and have stated more than once, that National industries suitable to the country and properly installed, both technically and economically, do not require even the enormous duties they now enjoy, much less any increase. As regards the undertakings that are not thus situated, certainly they should not be protected any further at the expense of consumers. For them only one process is possible or advantageous—liquidation—so that by reorganization in a new and more reasonable form they too may develope and prosper."

The results obtained by the Fabril and Pastoril of Rio Grande, and the Alagoana textile Companies, which have yielded an average dividend of 19⅓ and of 46% respectively for the three years 1892 to 1894, conclusively prove that not only does this industry require no further assistance in the shape of higher duties on similar imported products, but that the protection it already received in 1889 from the *Belisario* tariff was amply sufficient to secure a profitable return on the capital really employed when properly administered.

Profits of the Rio Grande Co. since its installation in 1884.

	Nominal gross profits estimated in currency in % of the currency capital.	Real gross profit estimated in gold in % of the gold capital employed
1885	8.74	7.0
1886	6.33	5.6
1887	16.11	17.4
1888	14.67	18.8
1889	15.15	18.7
1890	21.04	22.8
1891	17.34	14.9
1892	25.23	24.2
1893	25.60	20.3
1894	32.07	24.3

The average rate of duties levied by the different tariffs during the same period were as follows :—

	BELISARIO TARIFF 1887 to 1890	RUY BARBOSA. TARIFF 1890	PRESENT TARIFF INCLUDING SURTAXES.	
			NOMINAL	REAL
Cotton goods..................	47.48 %	51.30 °/o	85.52 °/o	40.92 %
Woollen......................	46.30 %	50.78%	81.39 °/o	40.29 %
Jute..............................	29.14 %	31.43°/o	49.71 °/o	23.71 °/o
Average for three classes	40.97 °/o	46.50°/o	85.54°/o	34.98 °/o

This table shows an apparent increase of more than 107°/o in the rate of duties on textile imports compared with the *Belisario* tariff, and 84 % compared with the tariff of Dr. Ruy Barbosa, that came into force in 1891. The increase is, however, in both cases purely nominal; in reality the duties actually recovered in 1894 represent only 85.3 /o of the real value of the *Belisario* tariff, and 75.2 °/o of Dr. Ruy Barbosa's tariff, if reduced to their real values.

If, therefore, profits have not fallen since 1890, in spite of the reduction of the real value of duties, it may be fairly concluded that the textile industry, at least, requires no addition to the protective duties it already enjoys.

Undoubtedly, there are many similar undertakings clamorous for further protection that do not actually yield an adequate return on the capital nominally employed; but it will be generally found on examination that this is the result, not of insufficient protection, but in some cases of imprudent or unskilful management, and that in others the amount of capital actually employed bears but little resemblance to its nominal value.

The following dividends distributed by some of the textile Companies show that this industry is not in such a precarious situation as is usually represented; and if these be reduced to a percentage of the capital actually employed, they would be found to considerably exceed in most instances the nominal rate of dividend actually distributed in 1894.

NAME OF COMPANY	NOMINAL CAPITAL	NOMINAL VALUE OF SHARES	DIVIDEND DISTRIBUTED.	RATE %
Brazil Industrial.......	6,000:000$	200$	14$000	7%
Confiança..................	6,000:000$	200$	10$000	5
D. Isabel..................	500:000$	200$	25$000	12 ½
Petropolitana............	4,000:000$	200$	6$000	3 „
Industrial Mineira.....	1,200:000$	200$	12$000	6 „
Fabril. R. Grande......	3,350,000$	200$	—	22 „
Alagoana de Tecidos...	—	—	—	40 „

It is probable that a thorough investigation of the real situation of other *protected* industries would bring to light a similar state of affairs.

If for fiscal reasons it were determined to recover duties in gold, or in paper at a rate equivalent to the premium, this would be equivalent to an increase of 37 % on the actual (1894) gold value of duties on imported merchandize in general, and to 14.79 °/₀ on those of textile goods in particular.

It has been clearly demonstrated that the textile industry, at least, requires no further protection, and could not, therefore, complain if the increase of duties created by such a measure were prevented from exercising a protective tendency by the imposition of an equivalent internal tax, as also other industries that a thorough examination might prove to be similarly situated.

Unless some such measure were adopted, the collection of duties on a gold basis would result in an entirely undeserved and unnecessary accession of profits to industries already sufficiently protected by the tariff, at the expense of revenue. If, however, the right of all National industries to claim the advantages that they were virtually guaranteed under the tariff of 1890 were admitted, and this adopted for the future for the collection of duties on a gold basis, it would be reasonable to stipulate that any *future* increase of duties, that fiscal necessity might render imperative, should not be neutralized by the protective tendency of such a measure, but accompanied by an equivalent internal tax on all national industries already protected by import duties.

Such a tax would be similar to the excise levied in England and India on all domestic products when a duty is imposed on similar goods imported from abroad. In this manner the revenue would be protected from loss, and an increase of duty imposed by the necessity of increasing the revenue prevented from exercising any further protective influence.

A late report of the Inspector of the Rio Custom house leaves no doubt as to the influence exercised on imports and the revenue by the uncompensated increase of duties.

He states that; "In the report I already had the honor of presenting to Y. Excellency I warned you that the imposition of surtaxes of 30, 40, 50, and 60 °/₀ on merchandize already heavily taxed, in accordance with the law of 24 Dec. 1894, must inevitably prove a perturbing element in our commercial relations, and result in the disappearance from our markets of large quantities of products that would no longer be saleable on account of the high prices they must rise to. My prediction is being realized. There are goods that pay duties of 80, 100 and 120 °/₀ on their value; such duties increased by the surtaxes are positively prohibitive. I am, therefore, of the opinion that any increase of duties on imports at the present moment is unadvisable, and must produce an injurious effect on the customs' revenue."

The collection of duties on a gold basis appears not only inevitable but advantageous, because, not only will it place the National finances on a secure footing, but also will define more clearly the position of National Industries, and introduce an element of certainty and continuity in their relations with foreign competitors.

Foreign and Internal Loans and the Redemption of the Currency.

It will, perhaps, be remembered that, when treating of the influence of foreign loans on real or international exchange, the analysis of the manner in which they affected the value of the currency was suspended until the laws that control the variations of nominal exchange, or the local value of the currency, had been likewise determined (page 31). This having been done we can now resume that analysis.

The influence of foreign loans on real exchange has been shown to be limited to a maximum appreciation of 0.21 pence, or sufficient to raise it to specie point, and that any further appreciation of the currency or rise of exchange consequent on the importation of bullion must be the result of variations of nominal exchange only. The importation of bullion was likewise shown (page 143) to affect the value of the currency in circulation, not in the inverse ratio of the price of bullion or specie, but in that of the average of all prices.

If these principles are clearly comprehended we can proceed to illustrate them by means of a concrete example, and then to determine the comparative influence on the value of the currency exercised by a reduction of its volume if effected by means of the proceeds of a foreign or of an internal loan respectively, both of which methods have been projected.

The quantity of paper money in circulation at the close of 1895 was about Rs.790,000:000$. Suppose that with this amount in circulation a foreign loan were negotiated for £10,000,000 at the rate of 80 % of its nominal value, bearing 5°/₀ annual interest and 1°/₀ sinking fund, whilst exchange stood at 10 pence. The real or nett value actually received would then be £8,000,000, and the real cost of the annual service of the loan equivalent to 7½ per cent. on that value, and that of interest to 6¼ per cent. Foreign burdens would, consequently, be increased during a period of 36.7 years by an annual sum equivalent to £600,000, and must be compensated by a corresponding increase of exports, decrease of imports, or both, or else real exchange must fall again and the currency suffer depreciation as soon as the proceeds of the loan were exhausted.

Supposing that the local '*business*' demand remain the same before as after the importation of the bullion, the general demand for the circulating medium must be increased by the amount imported, £8,000,000.

Applying the equation of value $v' = \frac{Vd'S}{Ds'}$ (page. 148), when D and S are equal we find that

$$\frac{10}{27} = \frac{d'}{790} \therefore d' = 292.6$$

The supply of the circulating medium is, therefore, 790,000:000$, the demand 292,600:000$, and the value of the currency 10 pence per mil reis. The importation of £8,000,000 will, as soon as the gold is thrown on the market, be equivalent to an increase of the demand by Rs.192,000:000$; and the demand will have risen to 484,600:000$. The equation of value will now be

$V' = \frac{484,600}{790} \times 27^{d} = 16.56$ pence, which is the rate to which exchange will be raised by the importation of the bullion. To this must be added the improvement of 0.21^{d} in real exchange as long as the importation continues, so that the total improvement of exchange produced by the loan will be $6^{d}77$ pence, from 10^{d} to $16^{d}77$, leaving out of consideration the influence that speculation would be certain to exercise simultaneously.

The sale of the bullion will not, however, have been effected all at either 10^{d} nor at $16^{d}77$, but at the mean of the two, $13^{d}38$. At this rate £8,000,000 would yield Rs.143,498:000$ paper. If then this sum were applied to the redemption of the currency and its equivalent withdrawn from circulation, this would be reduced to 646,502:000$, and the equation of its value would then be $V''' = \frac{484,600}{646,502} \times 27^{d} = 20.25$ pence.

The rise of 6.77^{d} in the rate of exchange produced by the importation and sale of the gold could only be permanent if accompanied by a large increase of exports, decrease of imports, or both. As has been shown, however, (page 16) the tendency of both exports and imports is to decrease as exchange rises, but the former more than the latter. Consequently, unless some special measures are previously adopted to prevent it, as soon as the proceeds of the loan are exhausted exchange must lose the advantage it previously gained and fall again in the same way as it rose, by $6^{d}77$, to 13.48 pence, and even lower.

The only positive and lasting advantage, therefore, gained by the redemption of the currency with the proceeds of the loan

would be an improvement in the value of the currency equivalent to 3.48 pence.

When, however, all the proceeds of the loan have been re-exported the increase of foreign burdens by £600,000 per annum will continue; and, consequently, unless the equilibrium of real exchange has been realized by the indispensable increase of exports, decrease of imports, or both, exchange must continue to fall; so that, even after the redemption at a great cost of more than 18 per cent. of the total quantity in circulation, it is quite possible that the value of the currency might drop again to its original value (10d.) or even lower!

The value of exports in 1893 was Rs.291,830:000$ gold, so that an increase of £600,000, or Rs.5,333:400$, in foreign burdens would represent an increase of nearly 2 per cent. in the value of exports, which, small as it may appear, cannot be spontaneously created, but only by a steady and sustained effort, necessarily the work of time and patience. Meanwhile international exchange would be unfavourable, the only alternative method of preventing it from falling being a corresponding reduction in the value of imports or of foreign burdens.

There is only one method by which the indispensable shrinkage of imports can be secured, and that is by an increase of duties on imported commodities. If, however, the increase be imposed on all imports indiscriminately it must affect the cost and, consequently, the value of exports, and thus reduce its useful effect. Until, therefore, the increase of exports is sufficient to yield a value equivalent to the increase of foreign burdens, it appears indispensable that the duties on the classes of imports not chiefly consumed by production should be systematically advanced sufficiently to secure the equilibrium of international payments every time that a fresh foreign loan or addition to permanent foreign burdens is effected.

It will here be of interest to examine the effects of a corresponding internal loan applied in the same manner to the redemption of the currency, a policy which, senseless as it is, has not lacked supporters.

Judging from actual quotations of internal stock, it is possible that an internal loan might be issued at a higher rate than a foreign one, let us suppose at 95 per cent. of its nominal value. An issue of Rs.202,105:272$ equivalent at 10d. to £8,421,003, would then yield a nett value of Rs.192,000:000$ currency, or £8,000,000, bearing 5 per cent. annual interest and 1 per cent. amortisation.

The cost of the service of the loan would then be as follows:

Annual interest at 5°/₀ on Rs.202,105,272$ —	Rs.10.105:263$
„ amortisation at 1% „ „	„ 2,021:052$
	12,126:315$
Deduct 1°/₀ on 192,000:000$, the true amortisation	1,920:000$
	Rs.10.206:315$

The balance then represents the true value of interest paid Rs. 10,206:315$ and is equivalent to 5.3 per cent. per annum on the real value, received and compares favourably with the rate, 6½°/₀, that corresponds to the interest of a similar foreign loan, but issued at 95 in lieu of 80 °/₀ of its nominal value.

If, however, the proceeds of the loan were applied to the redemption of the currency, as was the case with part of the internal loan of 1895, the advantages entirely disappear, and it then becomes evident how ruinous such an operation must prove if exchange rises, as it naturally must if the redemption is carried out.

If the proceeds of the internal loan just described were devoted to the redemption of the currency the quantity of paper-money would be reduced from Rs.790:000,000$ to 598:000,000$ and the equation of value would then be $V = \frac{292.6}{598} = 13^{d}.21$

And the real value of the cost of the service of the debt will then be as follows:—

Equivalent of the annual service Rs.12,126,315$ at 13d.21 exchange................................	£667.452
Deduct the value of the service, at 10d. exchange, the rate at which the loan was issued......	505,263
	£162,189

The difference £162.189 represents the annual loss to the Treasury that must ensue from the rise in exchange brought about by the redemption of the currency.

The true annual rate of interest paid on the real value received would be:—

Cost of the annual interest and amortisation at 13d.21 exchange....................................	£667,452
Less amortization of real value received, £8,000,000 at 1 per cent. per annum.........	80,000
	£587,452

The balance represents the annual interest payable, and is equivalent to 7.34 per cent. compared with only 6½ per cent. on a similar foreign loan issued at a rate 15 per cent. lower. It may be objected that the service of internal loans is not payable in gold but in paper, and that, therefore, the burden does not vary with the rate of exchange; but this, as, has already been pointed out, is a delusion, because what the taxation requisite to meet the service of the debt really represents is not so much paper-money merely, but its equivalent in labour or produce; and, consequently, if the real value of the taxation necessary to satisfy the service of the debt has risen from £505,263 to £667,452 in consequence of the improvement of the value of the currency, the burden of taxation must in reality have been proportionately augmented.

Apart from such considerations, any attempt to artificially raise the value of the currency by means of internal loans, and indeed in a less degree by *all* loans, is open to other and graver objections.

It should be borne in mind that the greater or less quantity of paper-money in circulation neither increases nor decreases the national, but only individual wealth. The country is none the richer because it has 800,000.000$ in circulation, nor would it be any poorer if it all suddenly disappeared. The real wealth consists in the commodities and services for which the paper-money is the medium of exchange. The aggregate value of all operations of exchange constitute the demand for the currency or circulating medium. Even if paper-money became of no value at all, there would in reality be no reduction of National wealth, because everything it was exchangeable for would continue to exist as before, and what was lost by some who held paper-money, would be gained by others who had acquired the goods and property, so that there would be a simple transfer, but no loss.

If then by means of a loan such as has been described, and by the simple substitution of one kind of promissory note for another—internal bonds for currency—and without any real accession of wealth of any kind, the value both of the currency and of the bonds themselves has been raised, either it must have been effected spontaneously, or else by the sacrifice of some interests for the benefit of others.

To simplify the explanation it will be advisable to illustrate by an example. Supposing that with an emission of Rs.400,000:000$ exchange stood at 12d —when the real value of the currency would be in sterling £20,000,000—and that the proceeds were applied to redeeming an equivalent quantity of paper-money,

thus reducing its volume to Rs.200,000:000$, and that exchange, consequently, rose to 24d The real value in sterling of the reduced quantity of currency, Rs.200,000:000$, would at 24d be still £20,000,000, but a completely new value would have been created in the 200,000:000$ of internal bonds, the value of which would have been likewise raised to £20,000,000, so that by the simple substitution of Bonds for currency £20,000,000 would have been converted into £40,000,000 without any apparent loss to anyone. Truly an operation, if it were a fact, more marvellous even than the traditional transmutation of the metals!

The explanation of the paradox is as follows:—The value of paper-money is determined solely by the relations of the demand to the supply, the supply being the amount in circulation, and the demand constituted by all the commodities, services, property offered in exchange.

The reduction in the volume of the currency reduces the supply, whilst the demand will have been increased precisely by the value of the new loan and its annual interest. Consequently, the paper-money will exchange for more commodities, etc., than before, with the exception of securities and of other property or services that are subject to fixed charges (such as Bonds and fixed incomes), and every other kind of commodity or property or services, including labour, will, therefore, have suffered a corresponding depreciation in proportion to the alteration of the rates of the demand to the supply.

Any attempt, therefore, to arbitrarily improve the value of the currency by means of loans is nothing less than a forcible transfer of part of the property of one class to another; and as the greatest part of the paper money and securities is accumulated in the hands of the capitalist and well-to-do classes, this unfair transfer is mostly from the poorer to the richer classes.

It may be objected that even if this were so, it would only be inverting the previous operation by which a similar transfer had been effected from rich to poor, in consequence of the original depreciation of the currency. But the two cases are not strictly analagous. In the first place the depreciation of the currency is not usually the result of a deliberate design, such as an attempt to raise the value of the currency by means of a loan must be. It is true that the depreciation of the currency must effect some transfer of value from creditors to debtors, and, therefore, generally favour the industrial classes, but such a transfer would be much more circumscribed in its action, and in fact would be limited to fixed payments, and would not include the currency except for an insignificant moiety.

With regard to the currency it is doubtful if to-day any single person possesses intact the same quantity of paper-money he held in 1889 before the fall in exchange commenced; that is, if he has allowed this money to lie idle without touching or changing it for anything whatever. If so, that individual has lost and is injured by the fall of exchange; but even so the fault is all his own; but if, as he naturally would if engaged in commerce, he has bought and sold with it, since the prices of the commodities must themselves have risen gradually in proportion to the fall of exchange, he has always, except perhaps at the initial fall, received the full value of his money, and, finally, the money actually in his possession to-day represents goods delivered or services rendered, which have been estimated not at the *par* rate, but at the current rate of exchange. So that if he were even obliged to convert at the rate of 10d. for each mil reis he would scarcely in reality be a loser at all.

Exception must of course be made for Banks or persons who deal only in money and not in commodities, that are, however, generally able to protect themselves in other ways.

The class that undoubtedly does suffer from a depreciation of the currency is that of Creditors at long dates, and especially the holders of public securities payable in paper; but amongst this class the holders of mere paper-money must not be generally included.

It must be likewise borne in mind that a Government emission of paper-money is but a substitute for taxation, and that had not the necessary funds been raised in this manner they must have been obtained from contributors by taxation, of which the propertied classes must have borne their share.

Whatever claims the holders of internal bonds issued previous to any loan raised with the object of redeeming the currency may possibly possess to compensation for depreciation in value, it is certain that those that lent money for this particular object can have no such rights to assert. The money lent in this case could in reality have suffered no depreciation, because it must have changed hands infinitely since the first depreciation commenced, and represented to its actual owner at the moment at which it was lent to the State, not the *par* value, but the actual market value of the goods or services, in exchange for which it had been acquired, appraised in the depreciated currency.

The fact that this class of creditors would realize a wholly unearned and undeserved profit at the cost of tax payers in general should prove an insuperable objection to any attempt to improve the value of the currency by means of internal loans.

The same objection cannot be urged in the case of foreign loans,

as the lenders would then receive precisely the same sterling value they delivered, allowing for the difference between the nominal and real rate of issue.

The popular illusion that imagines spontaneous transformations of value possible supposes that the Government has only to provoke some such automatic rise in the rate of exchange to immediately reestablish the equilibrium of the National finances, without trouble, labour or loss to any one whatever; forgetting or ignoring the fact that no permanent improvement is possible except on conditions of an increase in the value of exports, a decrease in those of imports or of the burden of foreign payments, or else of a reduction of the volume of the currency.

In order to complete the comparison between the effects of foreign and internal loans, it is necessary to examine their respective influence on Capital.

Supposing that the whole volume of the currency were productively employed and that the profits accruing at simple interest were added annually to Capital, if no loan were negotiated and things remained *in statu quo*, at the end of 36.7 years—the period requisite to amortize a loan on the conditions stipulated—Capital would have increased in the following manner:—

Original. Capital = currency in circulation Rs. 790,000:000$ at 10^{d}	=	£32,916,667
Interest at 5 per cent for 36.7 years at 10d.	=	60,402,084
Capital at end of 36.7 years	=	£93,318,751

A foreign loan for £10,000,000 employed in redeeming the currency would raise the value of the currency to 20^{d}25, and, supposing that there were no posterior depreciation in consequence of the addition to foreign burdens caused by the loan itself, the volume of the currency having been reduced to 646,502:000$, the state of Capital at the end of the 36.7 years necessary for amortisation of the loan would be as follows:—

Capital=currency in circulation Rs.646,502,000$ at 20^{d}25 exchange	=	£ 54,548,600
Interest at 5 per cent. for 36.7 years at 20^{d}25 exchange	=	„ 100,096,687
Bullion imported on account of loan	=	„ 8,000,000
Interest on bullion for 36.7 years	=	„ 14,680,000
		£ 177,325,287
Deduct interest and amortisation payable abroad for 36.7 years	=	22,020,000
State of Capital at the end of 36.7 years	=	£155,305,287

An internal loan on similar terms to yield £8,000,000 nett will, as has been shown, raise exchange to 13d 21, and applied to the redemption of the currency will reduce its volume to 598,000:000$

The state of capital will then be as follows:—

Capital=currency in circulation Rs.598,000:000$ at 13d 21...	=	£32,916,667
Interest at 5 per cent, on ditto for 36.7 years....	=	60,402,087
		£93,318,757

The total capital at the end of 36.7 years is identical with the result obtained if no loan at all had been employed and the currency had been left as it was.

Summing up the results of the two operations, it is unquestionable, if we regard their influence on either expenditure (taxation) or capital, that a foreign loan, even on considerably more onerous terms, is far more advantageous than an internal loan can be, especially when applied to the redemption of the currency.

Comparison of Internal and Foreign Loans.

	FOREIGN LOAN.	INTERNAL LOAN
Assumed price of issue...............	80 %.	95 %.
Addition to annual fixed foreign burdens............................	£600,000	nil.
Addition to annual fixed local burdens............................	Equivalent to Rs.12,110:600$	Rs. 12,126:000 Equivalent to £667,452
Rise in exchange created by the redemption of the currency, from 10d. to......	20d.25	13d.21.
Saving effected in exchange on foreign payments· (ratio)......	3.2	1
Increase of Capital in 36.7 years...	£100,756,687	Nil.

RECAPITULATION

Recapitulating the conclusions arrived at, we find that Exchange, or the value of the currency, is affected in a permanent manner only by *real causes*; that such phenomena as speculation, confidence and its negation are not real causes, and alone or unassisted can only account for purely temporary oscillations of value.

The value of paper-money, is in fact, influenced by two real causes only, and to one or the other of these, or to both, must be attributed every variation of the value of the currency of a lasting character.

These causes are:—

1st The ratio between the demand and supply of the circulating medium.

2nd The equilibrium of international payments.

These two causes determine the rate of real or international and of nominal exchange, of which the market exchange is the resultant.

Nominal exchange, or the local value of the currency, depends on the quantity of paper money in circulation and on the local demand for the circulating medium, which in turn is influenced by the favourable or unfavourable balance of international payments; consequently, the quantity of paper-money in circulation, the animation of local and foreign business and trade, and the rise or fall of speculation are all powerful factors in deciding the local value of the currency.

International or real exchange, on the other hand, depends exclusively on the variations of foreign payments and on the relative supply and demand for bills of exchange. The demand for bills is constituted by all payments due, including those on account of imports, interest and amortisation of all foreign loans both public and private, guarantees, dividends of foreign companies, and private remittances of every description. The supply is represented by all payments receivable on account of exports, of whatever character they may be, and also of the foreign capital imported for permanent investment in the country. If the resources that constitute the supply are insufficient to satisfy

the demand, international exchange must fall; but its influence on the value of exchange is limited to an appreciation or depreciation of its rate in a proportion equivalent to the cost of importing or exporting bullion to European markets.

Having now determined the different rules that govern the equilibrium of both exchanges, the *Statics* of the subject, we may now past on to examine its *Dynamics*, or the manner in which that equilibrium has been disturbed, and how best it may be re-established.

PART III

FIRST PERIOD 1861 to 1864.

Average rate of exchange	pence	26 7/8	
Value of exports (local valuation)	per capita	17$817	gold
Value of imports, ratio to exports 81.5%	"	13$914	"
Foreign charges including interest and amortisation of federal and provincial foreign debts, guarantees to foreign capital, and profits of foreign companies. Ratio to Exports 9.4 %.........	"	1$690	"
Imported capital; ratio to exports 7.6%; ratio to activo 6.8 %......................	"	1$246	"
Foreign funded debt, exclusive of national internal loans held in Europe.	"	9$227	"
Currency in circulation, including treasury and bank notes......................	"	10$832	paper
	"	10$459	gold
Annual federal Expenditure	"	6$413	gold
	"	6$636	paper
" " Revenue	"	5$816	gold
	"	6$034	paper
" " Deficit	"	0$597	gold
	"	0$602	paper
Balance of international payments (exclusive of bullion and private remittances) Local valuation of exports....		+ 86.328:589$	
Total indebtedness including all loans and issues of paper-money	Maximum	28$333	gold
	Minimum	27$709	"

Leaving out of consideration the movement of bullion and private remittances, as also of the importation of private capital, the value of imports was 81.5 per cent. of that of exports during this period, leaving a balance of 18.5 per cent. which sufficed to liquidate all other foreign expenditure of every kind, the total international debit or *passivo* amounting to 91.9 % of the value of exports, and to 85.7 per cent. of total resources or the *activo*. Consequently, a very large balance, equivalent to more then 86.000:000$ gold, remained in favour of the country which was imported as bullion or specie, and raised the rate of exchange to 27½ pence, or 18½ per cent. above its *par* value.

Financially and economically this was the halcyon period of Brazilian finance, when exports alone sufficed to meet the cost not only of imports but of the interest and amortisation of the foreign debt, guarantees, and dividends of foreign companies, and all other foreign expenditure of the country. Foreign charges for this period showed the comparatively high average of 1$690 gold per head, owing to the amortisation of a large quantity of the foreign debt in 1893, otherwise the coefficient would not have exceeded 0$857, the rate 1860.

National indebtedness, inclusive of all loans and the paper currency but not of the floating debt, amounted to Rs. 28$333 per capita reckoning the part payable in currency at its nominal value (maximum), and to Rs. 27$709 gold estimated at its real value reduced to gold at the current rate of exchange, 26⅞ pence. Of the total indebtedness only 9$227 per head corresponded to the foreign debt.

In spite, however, of the general financial and economical prosperity, expenditure exceeded revenue, the deficit being at the rate of Rs. 0$697 gold per head. The coefficients of expenditure for this period were Rs. 6$636 and Rs. 6$413 paper and gold respectively, the lowest on any subsequent rate, and one that is not likely to recur.

It will be interesting to note, as the analysis of the different periods proceeds, the increase that has taken place in expenditure of all kinds, as also of the national internal and foreign debt.

SECOND PERIOD 1865 to 1869.

Average rate of exchange	pence	21.31	
Value of Exports (local valuation)	per capita	16$419	gold
Value of Imports (" ") ...... = 92.5 % of exports	"	16$261	"
Foreign charges including interest and amortisation of federal and other foreign loans, guarantees to foreign capital, and dividends of foreign companies	"	1$517 (a)	"
	"	5$002 (b)	"
Imported capital = 31.8 % of exports and 6.9 % of *activo*	"	1$825	"
Foreign debt, exclusive of internal loans held in Europe	"	14$223	"
Currency in circulation including Treasury and Bank notes	"	14$289	paper
	"	11$057	gold
Total Indebtedness including all loans and issues of paper-money	Maximum	40$903	"
	Minimum	35$114	"
Annual Federal Expenditure	"	11$122	"
	"	14$384	paper
" " Revenue	"	5$700	gold
	"	7$294	paper
" " Deficit	"	5$422	gold
	"	7$090	paper
Balance of International payments (exclusive of bullion and private remittances as *per* local valuation of exports and imports		—158.555:415$	gold
Balance of International payments as *per* foreign customs' valuation of imports and exports.......		27.122:655$	gold
Shipments of coffee at the port of Rio Janeiro; annual average.........	sacks	3.055.869	of 10 ks.
	value	Rs.80.918:410$	gold

(a) Exclusive of foreign expenditure on account of the Paraguayan war.

(b) Inclusive of foreign expenditure on account of the Paraguayan war.

This was in every sense the most disastrous period of Brazilian financial history; and from the habits then acquired of

administrative extravagance, the result of the lavish expenditure caused by a long foreign war, the country has never wholly reccovered.

Exports fell off slightly, 7.8 per cent., compared with the previous period, and imports increased very largely, 17.4 per cent., whilst the foreign expenditure inclusive of that for the war rose enormously, 196 per cent. Consequently, the balance of international payments was extremely unfavourable; and exchange on this account alone must have suffered a great depreciation. In addition to these causes excessive emissions of paper-money simultaneously depreciated the local value of the currency, the quantity in circulation having increased from Rs. 10$885 to 14$285 per head. The average rate of exchange for the whole period was 21d.31, a fall of 5d.56 since the previous period; the lowest rate attained was 14d. in 1875.

A great divergence will be noticed in the balance of international payments obtained by the use of local valuations of foreign trade from those obtained by the use of foreign customs' valuations; one giving a balance of 158.555:415$ against the country for the five years, and the other that of only 27.122:655$. For reasons already given the former have been judged more correct.

The uncertainty as to the correctness of the appraised values of imports and exports is here most striking. Supposing that the same demand for the circulating medium had existed during this period as in 1860, when exchange was about *par*, and the supply 11$000 was consequently balanced by the demand, the the average depreciation that would correspond to the excess of emission would be 7.8 pence, and would more than account for the whole depreciation of the currency. It is, however, certain that if the emission of more paper-money, on the one hand tended to depreciate the local value of the currency, the largely increased demand for business purposes created by the operations of the war itself must have exercised an opposite tendency. What the precise value of this latter demand really was, and, consequently, what the true local depreciation, could only be decided by determining correctly the balance of international payments. This, however, we are unable to decide. And, on the one hand, if for reasons already given we are inclined to trust rather to the local valuations of imports and exports; on the other, it is possible that those of the foreign customs are the more correct, and that in reality the fall of exchange was the almost exclusive effect of excessive emissions of paper-money, and only in a very insignificant proportion that of unfavourable international trade.

The discrepancies noticeable between the local and foreign valuations of Brazilian trade for this period are typical, and illustrate the great importance of trustworthy statistics and the neccessity of securing greater accuracy in the future.

National expenditure rose in consequence of the war from Rs.6$413 gold per head in the previous period to Rs.11$122, or 75 per cent. This increase of expenditure was on the conclusion of the war never wholly recovered, the coefficient falling during the following period, 1870-1875, only 4 per cent. to an average of Rs.10$808 gold per head, which still represented an increase of 63.5 % compared with that of 1861-1864, and continued about this rate until the period 1886-1889 when it reached its, maximum Rs.11$334 gold per head. In 1890-92 declined to Rs.9$981, and in 1893 to Rs.8$319, not because of any absolute economy in the administration, but through the influence of the depreciation of the currency on the real value of local expenditure, as is shown by the fact that the expenditure appraised in paper-money at its nominal value, which was only Rs.6$636 in 1861-1864, rising to Rs.14$384 during the war, reached its maximum, Rs.19$532 per head, in 1893.

The effects of the war on production and exports were, fortunately, not so serious as might have been anticipated, and the slight reduction in the value of exports, from Rs.17$819 to Rs.16$419 gold per head, was the result rather of the fall in the price of the staple, coffee, from 5$729 gold to 4$952 per 10 kilos, than to any reduction of quantity; on the contrary, coffee shipments in this period reached the large average of 3,055,869 bags.

During this period National indebtedness was nearly doubled, rising from Rs.28$333 to Rs.40$903 gold per head, reckoning paper debts at their nominal value. Of this the foreign debt, which was only 9$227 gold per head in the previous period, had risen to 14$223. The internal debt had risen likewise from Rs.8$549 to 12$404 by emission of both *'apolices'*, or bonds payable in currency, and *'national'* bonds payable in gold, which in 1869 for the first time made their appearance. The increase of paper-money, from Rs.10$832 to Rs.14$289 per head was chiefly due to emissions of treasury notes that increased from 35,391:000$ to 61,706:000$, the increase in bank notes being only 12,757:000$.

Foreign capital imported was very large, and averaged 10,958:546$ gold per annum, equivalent to 6.9 per cent. of the average annual international credit or *activo*, of which Rs.8,889:000$ was the product of loans, and the rest of capital for railways and other public companies.

The burden of foreign expenditure increased, exclusive of that for the war, 77 per cent. since 1861, from 0$857 to 1$517 per

head. Inclusive of the war expenditure it was 5$002 per head. The increase of both expenditure and indebtedness during this unhappy period of Brazilian history was to be expected under the circumstances, but the failure to reduce the rate of national expenditure, or to make any attempt to pay off some part of the heavy liabilities then contracted after the excuse for such expenditure had ceased, cannot be regarded as an unavoidable consequence of the war, and must always remain a most unsatisfactory feature of national finance.

THIRD PERIOD 1870-1875

Average Rate of exchange.........	Pence.	24.3
Value of Exports (local valuation).	p. capita Rs.	20$345 gold
Value of Imports (do do) = 74.6 per cent. of Exports...	„ „ „	15$342 „
Foreign Charges-including service of federal and other foreign loans, guarantees to foreign capital, and dividends to foreign companies 8.2 °/₀. of exports.	„ „ „	1$693 „
Imported Capital = 7.2 per cent of Exports and 6.7%. of *Activo*...	„ „ „	1$486 „
Foreign Debt, exclusive of internal gold loans held in Europe......	„ „ „	14$018 „
Currency in circulation; Treasury and Bank notes..................	„ „ „	18$554 paper 11$047 gold
Total Indebtedness including all loans and issues of paper-money...........................	Maximum Minimum	59$427 „ 46$032 „
Annual Federal Expenditure......	„	10$808 „ 11$737 paper
„ „ Revenue...........	„	9$092 gold 9$816 paper
„ „ Deficit.............	„	1$716 gold 1$921 paper
Balance of International payments exclusive of bullion and private remittances as *per* local valuations of exports and imports......	+	Rs.254,995:778$ gold.
Balance of International payments, as *per* foreign customs' valuation......................................	+	„ 129,457:970$ „
Shipments of Coffee at the Port of Rio Janeiro; annual average......		Bags 2,715,495 „ Rs.105,954:014$ „

The reduction of foreign expenditure consequent on the close of the war from Rs,5$002 to Rs.1$693 per head, and a great improvement in the foreign demand for Brazilian produce succeeded in regaining in less than five years the economical situation destroyed by the war, and exchange rose rapidly from the lowest point it had yet reached, 14d., to an average of 24.3 pence for the whole period, the highest point it reached being 28 ⅝ pence in 1875, when paper-money stood for a short time at an absolute premium, as it did again in 1889.

Exports increased in value from Rs.16$419 to 20$545 gold per head in consequence of the rise in the price of coffee from 4$952 to 6$339 gold per bag, the highest average yet attained, and which more than compensated the falling off in quantity of average shipments at Rio, which fell from 3,003,805 bags in the previous period to 2,710,830 per annum.

Imports instead of increasing showed a positive decrease from Rs.16$261 to Rs. 15$342 gold per head. Imports during this period only represented 74.6 % of the value of exports and the total international Debit (*passivo*) did not exceed 86 per cent. of the value of Exports alone, and 80.9 per cent. of the total Credit or *Activo*; there being, therefore, a balance equivalent to 19.1 per cent. of the value of exports available for importation in the form of bullion or specie. The influence of international payments on the value of the currency must, therefore, have been uniformly favourable; and, in view of the continued emissions of paper-money, which increased the quantity in circulation from 14$289 to 18$554 per head, and must have exercised a powerful and simultaneous depreciating influence on its local value, the improvement of the value of the currency and the rise of exchange during this period, it must be concluded, was the exclusive effect of the favourable balance of international payments.

To this result the increase of the value of exports and reduction of that of imports principally contributed, though the importation of foreign capital, which still continued on a large scale, must have likewise cooperated. Foreign capital imported represented 7.2 per cent. of the value of exports and 6.7 of the total *activo*, and comprised 11,852:004$ gold in the shape of foreign loans and Rs.3,189:760$ for guaranteed and other undertakings.

The balances obtained respectively for this period from the use of local and foreign valuations of imports and exports continue to show a great discrepancy, but in this case both indicate that they were indisputably favourable, the difference being one of degree merely. It is, however, noteworthy that their

relative positions are now reversed, whereas the foreign valuations yielded the more favourable estimate for the previous period, they now show an inferior result to that of local valuations in regard both to the value of imports and exports.

The nominal value of total indebtedness rose from 40$903 to 59$427, and its real value from 35$114 gold to 46$032 per head. This was the result partly of the increased real value of the paper money and of that of the internal debt, but also of a positive addition to debt of all descriptions, with the exception of the foreign debt which was reduced from 14$223 gold per head to 14$018. The internal debt increased simultaneously from 11$388 to 26$365 (nominal value), and the paper money in circulation from 14$289 to 18$554 per head.

In spite of the general improvement and the increased value of paper-money expenditure exceeded revenue by 1$716 gold per head.

Compared with the previous period of the war, expenditure fell only 2.8 per cent., and still continued 68.5 per cent. in excess of that of 1861-1864, the period previous to the war, if reduced to its real or gold equivalent.

If the nominal value of expenditure in paper-money is compared with that of the previous period it shows a reduction of 18.1 per cent., but a positive increase compared with 1861-1864 equivalent to 76.8 per cent!

The ease with which a favourable balance of international exchange raised the value of the currency to *par* in less than five years was so much the easier because the quantity of paper money to be operated upon was comparatively small, not exceeding 18$554 per head. The same conditions of international payments which then sufficed to raise exchange from 14d. to *par* would to-day (1895) suffice to raise the 789.000.000$ actually in circulation from 10d. only to 15½ pence.

FOURTH PERIOD 1876 TO 1885.

Average Rate of Exchange................	pence	22¼	
Value of exports (local valuation)......	per head	Rs.16$103	gold
Value of imports (local valuation) = 91.4 per cent. of exports.............	„	14$349	„
Foreign Charges including the service of federal and other foreign loans, guarantees to foreign capital, and dividends of foreign companies; = 12.2 per cent. of exports.................	„	1$978	
Imported Capital = 5.3 per cent. of exports and 5 per cent of *activo*.........	„	0$853	„
Foreign Debt, exclusive of internal gold bonds payable in Europe..........	„	13$368	„
Currency in circulation; Treasury and Bank notes:................................	„	16$951	paper
	„	13$989	gold
Total Indebtedness including all loans and issues of paper-money — Maximum	„	61$182	„
— Minimum	„	53$358	„
Annual Federal Expenditure	„	10$072	„
	„	12$234	paper
„ „ Revenue....................	„	7$823	gold
	„	9$573	paper
„ „ Deficit	„	2$250	gold
	„	2$661	paper
Balance of International Payments, exclusive of bullion and private remittances, as *per* Local valuations of exports and imports...........................	+	Rs.5.105:676$	gold
Balance of international Payments, as *per* Foreign Valuations of exports and imports................................	+	Rs.217.725:325$	„
Shipments of coffee at the Port of Rio; annual average..............................		3.907:846	bags.
		Rs.99.790:745$	gold

In 1874 the price of coffee had already commenced to fall from the high average of 6$304 per bag maintained during the previous period to the lowest yet registered for any of the periods under analysis, 3$247. The effect of this fall in price must, however, have been greatly compensated by the largely

increased output, shipments of coffee from the Port of Rio having risen from the average of, 2,716:830 bags per annum to 3.907,846, so that its aggregate value shows a reduction of only about 6 % compared with the fall of 48.4 per cent. in its price! Nevertheless the value of exports shows a reduction of 4$126 per head, according to local valuations, but only of 0$555 by the foreign. If the latter appear to agree better with the statistics relative to the value of coffee shipments from Rio, the former certainly correspond more with the depreciation of exchange during this period; that must have been the exclusive effect of unfavourable international balance of payments and the consequent depression of all local business, because it was simultaneous with a positive appreciation of the local value of the currency, effected by the systematic reduction of its volume. This is evident if we examine the sundry factors that affect the value of both nominal and international exchange.

Foreign charges had risen slightly, on the one hand, from 1$693 in the previous period to 1$978, or about 17 per cent., whilst imported capital had, on the other hand, diminished 42 per cent. from 1$486 per head to 0$853. These two items will account for a certain amount of the depreciation, accompanied as they were by an undeniable falling off in the value of exports, but only for a very small proportion.

The currency, on the contrary, was reduced from Rs.18$554 to Rs. 16$951 per capita, in spite of the emission of 40.000:000$ treasury notes in 1878 and 1879, and must have experienced a corresponding rise in value unless other adverse factors had simultaneously exercised a depreciating influence. A glance at the diagram fronting page 160 will show how these two distinct influences must have operated during this period, one tending to steadily improve, and the other, still more powerfully to depress the value of the circulating medium. The red line, which represents the theoretical variations of nominal exchange as influenced by the quantity of paper-money in circulation, shows that the depreciation caused by the new emissions in 1877-79 was not only recovered, but that the value of the currency must have experienced a positive improvement equivalent to ½d. during the whole period on this account. The blue line, notwithstanding, shows an almost uninterrupted decline, and has no resemblance whatever to the other, or red curve. The fall that occurred in the market rate from 1877 to 1878 corresponds very nearly, as would be expected, with the depreciation caused by increased emissions, one being equivalent to three pence and the other to two and a half. From 1878 forwards, however, all resemblance in tendency ceases entirely, and whilst the red line

registers a continuous improvement equivalent to three pence up to 1885, the blue curve shows an almost uninterrupted fall of *five pence!*

The balance of payments obtained by the use of local valuations of foreign trade shows an excess of Rs.5.105:676$ gold in favour of the country. It is *possible* that the depreciation of the currency during this period was the simultaneous result of private remittances, which have not been taken into account, and must have turned the favourable balance against the country, as also of the local depression that bad trade invariably creates, which would have influenced the local demand for the circulating medium and exercised a depreciating influence on exchange; but neither one nor the other are sufficient, nor both together, to account for the tremendous fall in exchange since 1879. If we turn to the foreign customs valuations of Brazilian trade, the discrepancy is still more apparent. In this case the balance in favour of the country is much more considerable, and amounts to 217.725:325$ gold, which is absolutely irreconcilable with the simultaneous depreciation of the market rate of exchange and the improvement that the reduction of the volume of the currency must have exercised on its value, even making every allowance for the effect of private remittances and local depression of trade.

We can, therefore, only conclude that both local and foreign valuations of Brazilian foreign trade for this period, at least, are defective and irreconcilable with facts, but that the local valuations are less so than the foreign.

The great importance of trustworthy statistics for the investigation of economical phenomena is indisputable. The untrustworthiness of all such statistics in relation to Brazilian trade, even after they have received the most careful revision, is strikingly illustrated by the discrepancies of this period.

Total indebtedness during this period rose but little, from a nominal value of Rs.59$427 per head to Rs.61$182, and was the exclusive result of additions to the internal funded debt, as the foreign debt had simultaneously fallen from 14$018 to 13$368, and the paper-money in circulation from 18$554 to 16$951.

Expenditure, as usual, showed a large excess over ordinary revenue, equivalent to 2$661 paper, or 2$250 gold, and its real value fell very slightly in consequence of the fall of exchange, it being 10$808 in the previous period compared with 10$072 in this.

The real value of revenue also declined, but in a far greater proportion, from 9$092 gold to 7$893, in consequence of the de-

preciation of the currency and of the custom of collecting duties in paper, at their nominal in lieu of their real value.

With such a system the depreciation of revenue must always be greater than that of expenditure, and deficits become unavoidable.

The unsatisfactory nature of statistics relative to this period make positive conclusions if not impossible, at least questionable, but must suffice until a thorough analysis of the different economical phenomena that correspond to this period, such as could only be attempted with full access to all the sources of information of which the Government disposes, and with ample time at disposal, can be obtained.

FIFTH-PERIOD 1886 TO 1889.

Average Rate of Exchange................	pence	24¼	
Value of Exports (local valuation)......	per head	Rs.16$460	gold
Value of Imports („ „) ... 89.1 per cent. of Exports................	„	14$667	„
Foreign charges including service of Federal and other foreign loans, guarantees, and dividend of foreign capital, = 14.6 per cent. of Exports.	„	2$216	„
Imported Capital = 14.3 per cent. of Exports and 12.0 per cent. of *Activo*...	„	3$077	„
Foreign Debt exclusive of internal gold loans payable abroad.....................	„	16$173	„
Currency in circulation including Treasury and Bank notes.............	„	14$774	paper
	„	12$944	gold
Total Indebtedness including all loans and emissions of paper money .... Maximum	„	61$661	„
Minimum	„	56$802	„
Annual Federal Expenditure.	„	11$334	„
	„	12$858	paper
„ „ Revenue	„	9$998	gold
	„	11$359	paper
„ „ Deficit	„	1$336	gold
	„	1$999	paper
Balance of International Payments, exclusive of bullion and private remittances as *per* local valuations of imports and exports.........................	+	Rs.52.852:691$	gold
Balance of International Payments, as *per* Foreign valuations of imports and exports........................	+	Rs.223.514:706$	„
Shipments of Coffee at the Port of Rio;		2.990:965	bags
		Rs.99.287:974$	„

No period of Brazilian financial and economical history is more interesting or has been more generally misunderstood and misrepresented than that of 1886 to 1889; when, after an unprecedently long period of depression, exchange for the second time since the Paraguayan war rose to a rate above *par*, and paper-money to a positive premium!

This period is looked back on by those that only consider effects without investigating their causes with *'saudades'*, as the golden era of national finance, and thus by comparison reflects discredit on the present and its institutions.

The most prominent fact in the statistics for this period is that international payments represented 95 per cent. of resources, or the *Activo*, and 108 per cent. of the value of exports, whilst imports alone amounted to 89 per cent. of their value.

The importation of foreign capital exceeded the rate of any previous period, being equivalent to 2$335 gold per head, whilst foreign charges likewise rose to their maximum value, 2$216 gold per head! The combined value of imports and foreign charges amounted to 16$923 per head, about 3 per cent. in excess of that of exports. Consequently, except for the immense importation of foreign capital during this period the favourable balance of international payments must inevitably have been reversed.

The value of exports remained much the same as during the previous period, 16$460 compared with 16$103. That this was so, is confirmed by shipments of coffee at Rio, which fell from an average of 3,307,846 bags per annum during the previous period to 2.990.965; the loss in quantity, however, was compensated by higher prices, so that the aggregate value remained about the same. The value of imports remained almost stationary at 14$667 compared with 14$349 for 1878-1885.

The increase of imported capital was derived from the following sources; 1$921 per head or 106,668:000$ from foreign loans; 0$060 per head or 3,339:230$ from the capital of guaranteed railways, etc., 0$972 or 13,505,973$ from the capital of unguaranteed companies; and 0$129 per head or 7,200:000$ from foreign provincial or municipal loans. Every recourse to attract fresh capital was resorted to, and the importation was on a scale never before witnessed. In consequence, the foreign debt increased from 13$368 to 16$173 gold per head. The internal debt remained at about the same nominal value, but the quantity of paper-money in circulation underwent a great reduction, from 16$951 to 14$774. Consequently total indebtedness exhibited only a small increase from 61$182 to 61$661 per head.

It is impossible to study the foregoing statistics without coming to the conclusion that the improvement in the value of the currency during this period was the almost exclusive result of an unprecedented use of foreign credit; and that without the importation of capital which reached the enormous total of Rs.130.713:203$, equivalent to 12 per cent. of the total *activo* or

resources for the four years, the course that exchange must have taken would have been probably reversed.

A great part of the foreign capital imported was utilized in redeeming the currency; the improvement in the value of the currency due to this cause was equivalent to a rise of exchange of nearly 3 pence, and would have sufficed alone to raise the market rate from 20 pence in 1886 to 23 pence. The balance of the improvement from that rate to 28½ pence in 1889, the highest rate attained, was without doubt the result of the influence excercised on the value of the currency by the enormous importation of bullion that ensued.

It is true that if the foreign customs' valuations of Brazilian trade are consulted they will tell a different tale. Imports then only represent 73.9 per cent. of exports, and the total annual debit or *passivo* is but 91.3 per cent. of the value of exports alone, and only 56.6 per cent. of that of the annual credit or *activo*, leaving, therefore, a balance of Rs.223.514:706$ in favour of the country, compared with only Rs.52.852:691$, the balance obtained from local valuations.

If, therefore, the foreign valuations were the more correct, the large balance in favour of the country would sufficiently account for the improvement of exchange without the intervention of foreign capital at all. There is, however, no reason to believe that the foreign valuations are the more correct; on the contrary, there are solid reasons to prefer the local valuations. One reason may be cited. The price of coffee had risen from the low average of the preceeding period, 3$247 per bag of 10 kilos, to the average of 5$432 for this period, but shipments had fallen-off at Rio from an annual average of 3.907:846 to 2.990.945 bags (JORNAL DO COMMERCIO), and the aggregate value of shipments remained almost precisely the same as during the previous period. This would be impossible, seeing that coffee forms the principal export of the country, if the favourable balance presented by the foreign customs valuation were correct.

If, therefore, the local valuations of exports and imports, when duly corrected and reduced to their gold equivalent, in reality represent the relative value of one and the other, it is unquestionable that without the assistance of foreign capital the equilibrium of international payments could not have been maintained, and that any attempt to artificially realize a return to specie payments under such circumstances was bound to end in failure and disaster.

Unless the indispensable economical equilibrium is not only previously realized but capable of being maintained, it is useless to expect that gold can be retained in the country or the partial

resumption of specie payments prove anything but a costly and useless experiment.

An illustration of what must occur in such cases is offered at the present moment in Chile, where specie payments were resumed without previously ascertaining if the economic conditions of the country rendered such an attempt feasible. In consequence, bullion and specie are there rapidly disappearing again, and a return to forced currency is believed to be but a question of time. If exports do not suffice to pay for imports as well as all other fixed foreign charges, the gold imported, unless it is continuously renewed by the importation of fresh foreign capital, will inevitably drain-away again and disappear, as it has done before.

When both in 1876 and again in 1889 exchange rose above the specie point (about 27½d.) the currency ceased *de facto* to be inconvertible, and gold, on the contrary, fell to a discount. At any rate in excess of 27½d. the premium attained by paper-money could only be the result of a tightness in the money market, and of an excessive demand. The demand being then largely in excess of the supply the appreciation of the currency must continue until specie can be imported in sufficient quantity to supplement the supply of the local circulating medium and thus equilibrate the demand.

The policy pursued by Visconde de Ouro Preto and his predecessors of replacing the paper-money by a metallic or convertible currency created so great a reduction in the supply of the circulating medium in 1888 and 1889 that its nominal value exceeded the real, and its quantity was reduced to Rs. 13$909 per head, evidently insufficient to meet the demand. Had the equilibrium of international payments been simultaneously realized depreciation would have been impossible so long as the emission of paper money were not increased, and the demand continued, therefore, equivalent to the supply; there would then have been no necessity to call in the small quantity of paper-money in circulation to maintain exchange at *par*. Unfortunately this equilibrium was not assured and, consequently, as soon as the available supply of gold for export was exhausted, although the relative values of the local demand and supply may have remained unaltered and, with the exception of that part attributable to the balance of international payments, have positively increased, the demand for gold being in excess of the supply its price must have risen, and the currency have been depreciated proportionately if measured by this standard, although its value or general purchasing power would have suffered no depreciation, the rise of some prices being compensated by the fall of others.

It is, however, impossible to retain gold in the country with an inconvertible currency in operation on any other terms than the realization of the economical equilibrium. If the Visconde de Ouro Preto had realized his intention and actually substituted specie for all the paper currency, gold must have continued to leave the country in precisely the same manner. The reduction of the volume of the currency in that case, however, would have caused a fall of prices at home, and, consequently, an increased demand abroad, which would possibly have been sufficient to redress the economical equilibrium.

This automatic regulation of exchanges is precisely the great advantage possessed by gold over inconvertible currencies, and a return to such a system would be advantageous chiefly on this account. Undoubtedly, Sr. Affonso Celso understood the matter he had taken in hand, and endeavoured to secure the necessary equilibrium by the best method available, the reduction of the burden of foreign payments. This he effected by the conversion of the outstanding foreign loans, bearing 5 per cent. interest and 1 per cent. amortisation, into a new debt of only 4 per cent. annual interest and ½ per cent. amortisation. In this manner a large economy was effected and the annual burden of fixed payments relieved; so that, in spite of the very large positive additions to the foreign debt entailed by the borrowing necessary for the redemption of the currency, the cost of its annual service fell from 25.554:000$ gold in 1889–90 to 23.265:041$ in 1890-91.

Whilst labouring to reduce the external annual liability of the country, the necessity of augmenting resources was likewise attended to by affording the assistance to agriculture and production that the situation created by the extinction of slavery exacted. Had the project of the substitution of a metallic currency been actually realized, there is little doubt that it would have proved ultimately highly advantageous to the country, but at first it is probable that the restriction of local credit and the low rate of prices that must have ensued would have exercised a depressive influence on production and agricultural development and enterprise generally, that the depreciation of the currency, on the contrary, has so powerfully stimulated.

Expenditure during this period rose to the highest real value it has attained before or since, 11$334 per capita, and taxation must, therefore, have exacted the largest proportion of labour or its equivalent. Estimated in paper money, even, the expenditure also shows an increase from 12$234 to 12$858.

Ordinary revenue rose from 7$803 gold during the previous period to 9$998 per head; but, in spite of all, deficits continued as previously and amounted to 1$336 gold per capita.

Recapitulating our conclusions relative to this period, it would appear that the project of substituting the paper money by a metallic currency, however well intended, was premature and too artificial to be advantageous. The morality of the improvement of the value of the currency by such means has been already discussed, and shown to be extremely questionable. The project though well conceived and ably carried out, was predestined to failure, because the resources of the country were insufficient to realize the complete substitution of the currency by metallic money, or to realize the indispensable equilibrium of international payments if part remained in circulation.

SIXTH PERIOD 1890-1892.

Average Rate of Exchange...............	Pence	17.0
Value of exports (local valuation).......per head	Rs.18$202	gold
Value of imports „ „ = 106.6 per cent. of exports............	„ 19$191	„
Foreign charges, including the service of federal and other foreign loans guarantees, and dividends of foreign companies,=12.1 per cent. of exports.	„ 2$155	„
Imported Capital = 26.5 per cent. of exports and 21 per cent. of *activo*.....	„ 4$796	„
Foreign debt, exclusive of internal gold loans payable abroad.....................	„ 18$315	„
Currency in circulation; including Treasury and Bank notes	„ 34$384	paper
	„ 21$487	gold
Total Indebtedness including all loans and emissions of paper money................................ Maximum	„ 84$065	„
Minimum	„ 64$125	„
Annual Federal Expenditure........... ..	„ 9$981	„
	„ 16$273	paper
„ „ Revenue	„ 8$059	gold
	„ 13$121	paper
„ „ Deficit......	„ 1$922	gold
	„ 3$154	paper
Balance of International Payments exclusive of bullion and private remittances as per Local Valuations of imports and exports	— Rs.187.052:088$	gold
Balance of International Payments as per Foreign valuations of imports and exports	— Rs.36.359:482$	
Shipments of Coffee at the Port of Rio.	3.054:282	bags
	99.213:491$	gold

A single glance at the array of figures that constitute the indictment is sufficient to reveal the unmistakable causes that have operated the extraordinary depreciation of the currency during this period.

No official or local statistics of the foreign trade are available for this period, and those here presented as local valuations are merely the foreign customs' valuations reduced to their equivalent '*local*' value in the same proportion as was maintained between them from 1875 to 1889.

Whichever, however, of the two valuations be consulted the result is similar, an absolute balance of payments against the country, and the difference merely one of degree; and, as the value of bullion and of private remittances have been omitted altogether, it is indisputable that the balance of international payments since 1889 must have been uniformly unfavourable, and that a great part of the depreciation of the currency must be attributed to this cause.

The value of exports increased from 16$460 to 18$202 but that of imports showed a still larger increase from 14$667 to 19$191. This extraordinary increase of imports, if in part attributable to the larger value likewise exported, is due even more to the depreciation of the currency. If the foreign statistics relative to the exportation of merchandize to Brazil for this period are examined, they will be found to exhibit an almost universal increase of from 30% upwards. The value of imports *exceeded that* of exports by 6 per cent. whilst the total international debit or *passivo* exceeded the credit or *activo* by 18 per cent.

Foreign charges, owing to the conversion operation of 1889, fell slightly from 2$216 per head to 2$155 gold; but total indebtedness increased enormously 36.3 per cent. from a nominal value of 61$668 in the previous period to 84$065, owing to the increase of the internal debt and of emissions of paper money.

The enormous increase of the currency from 14$774 to 34$384 per head, equivalent to 140 per cent., exceeded any possible increase of a legitimate demand for the circulating medium that "the first awakening of national activity stimulated by the abolition of slavery" should determine, according to the opinions of Dr. Ruy Barbosa and Mr. Glyn, chairman of the London and Brazilian Bank, and provoked a violent fall in the local value of the currency equivalent to more than 10 pence; which could only have been prevented from having depreciated exchange to a still lower rate than it actually reached by the artificial movement and demand for the money created by speculation, which in 1888 had already commenced to show unmistakable evidence of its influence.

Foreign capital, on the other hand, lent but little assistance during this period, precisely when it was most needed, and represented only 7.8 per cent. of the value of exports, whilst during the former period it reached 14.3 per cent.

Everything, therefore, conspired to inflate the international debt or *passivo*, and to reduce the value of the credit or *activo*.

The only redeeming feature of the whole financial situation was the reduction in the real value of expenditure, consequent on the fall of exchange, from 11$334 to 9$981 gold; but, as revenue also *fell* off from 9$998 to 8$059 gold, deficits continued to accumulate as previously.

With such a financial and economical situation the depreciation of the currency was inevitable; nor can a permanent improvement be expected except by removing the causes of disturbance, and restoring the equilibrium of exchanges, by either reducing the volume of the currency or decreasing the proportion of imports to exports, or both. The attempt to reestablish this equilibrium by means of foreign loans obtained on onerous terms may afford a temporary relief, but must ultimately leave the economical situation worse than before.

The situation which must be faced may be summed up in few words. An annual expenditure largely in excess of revenue, an exhausted treasury, shrinking resources, and vanished foreign credit; all conspire to create a situation so dangerous, that unless it be vigorously handled must end in disaster and bankruptcy.

It will be interesting to examime the causes that lead to such a *degringolade*.

The initial fall of exchange in 1889 on the proclamation of the Republic was purely speculative, the transitory effect of a panic or loss of confidence in the political situation, that *alone* and unaccompanied by any *real* cause could not have been sufficient to determine a *permanent* depreciation of the currency. The large accession to the ordinary demand for bills and gold for export that this panic originated was not confined to foreigners alone, but participated by the National Bank and others who hastened to realize and place their specie securely abroad. In view of the very large accumulations of bullion and specie, this extraordinary demand could not have permanently affected the rate of exchange had the equilibrium of international payments been a fact instead of a pleasing fiction. As it was, it merely *precipitated* matters by anticipating what must have inevitably have taken place unless staved off by fresh foreign loans, as the whole available balance in the hands of European bankers was already reduced to about £2.213.000 at the close of 1889.

The equilibrium of the supply and demand for bills would, as soon as this extraordinary demand were satisfied, have righted itself again if that of international payments had not been itself

in an unstable state, or if some other real cause had not cooperated in the permanent depreciation of the currency. Confidence would have been re-established and gold returned to the country.

This real cause was supplied first by the unprecedented increase in the volume of the currency, which produced the corresponding depreciation of nominal exchange, and confirmed the initial fall that speculation originated; and this fall was in its turn exaggerated and perpetuated by the final disequilibrium of international exchange caused by the exhaustion of the proceeds of the foreign loan and the ever increasing ratio of the value of imports and other foreign obligations to that of exports.

The disorganization of the federal revenues resulting from the transfer of the export duties and other revenues, 17.000:000$ per annum, to the States could not but add to the difficulties of the situation, which the additional duties or surtaxes on imports did not compensate. Revenue consequently fell off from Rs. 9$998 to 8$059 gold per head.

That the supply of money in 1889 was insufficient to satisfy the demand is proved by paper-money having risen to a premium of 5½ per cent. What the precise value of the supply then was cannot be determined, because it must have been largely supplemented by the immense quantities of specie that entered into circulation as soon as the value of the currency became equal to that of gold.

The general extension of credit that followed the gigantic importation of foreign capital in every form soon found the volume of the currency, even when supplemented by specie, insufficient for the speculation it engendered, and clamored for more. The first attempts to satisfy the demands were modest and tentative, and limited to the emission of convertible notes. As the fever of speculation grew the demands for more paper-money became more and more imperious, and coinciding with the critical political crisis, proved irresistible. Prudence was thrown to the winds and emissions followed each other with lightning rapidity, until the volume of the currency, which in 1889 did not exceed Rs. 198.815:562$, rose to Rs.555.825:000$ in 1891, and to Rs.606.917:750$ in 1892!

The average depreciation of the currency that corresponded to excessive emission for this period was equivalent to 6d., or a fall from *par* to 21d.; the rest of the depreciation, equivalent to 5d. was therefore, the result of the unfavourable nature if international balances.

The tightness of paper-money observable in 1888 and 1889, and which Speculators interpreted as an insufficiency of the circulating medium, was in reality the first premonitory symptom of the epidemic of speculation that 'ere long was to sweep all before it; and it was to the misconstruction and misapprehension of this symptom by the responsible authorities that may be traced the origin of the whole subsequent disastrous policy of unrestricted emission and "*largos horizontes.*"

In an eloquent flight of his exuberant fancy Dr. Ruy Barbosa depicted not only the length to which this speculative mania must have already attained, but the general misapprehension as to its nature, and that this was shared by the Government of which he formed part.

"The first awakening of national activity stimulated by the abolition of slavery gave rise to innumerable banking, industrial and commercial undertakings, the importance of which in only 18 months (1888-1890) *was equal to all the simultaneous enterprises of sixty years of the former regime!*"

Stewart Mill thus describes the periodical growth of speculative mania, "After a few years of economy so much additional "capital has been accumulated that it no longer is possible to "invest it at the usual rate of profit."

In Brazil the fall in the rate of profits was provoked, not so much by accumulation of capital or difficulty of placing it at a remunerative rate of interest, as by the increased cost of production consequent on the suppression of slavery and to the reduction of nominal profits (in paper-money) caused by the rise of exchange.

Such an epidemic commencing in 1888 continued to 1891 until the contagion had attacked all classes, and created an unprecedented expansion of credit that only fed still more the adventurous spirits.

The unprecedented issue af paper-money and its consequences, from which we are still suffering, was but the logical and inevitable consequence of this prevailing epidemic, and would in all probability have never occurred, or would certainly have never attained such gigantic proportions, had the speculative mania been checked, or never permitted to assume an epidemic form.

The responsibility for the present state of affairs must, therefore, be shared by all who either failed to observe the birth and growth of this speculative mania, which was in full swing before the advent of the republican regime, on which the blame is usually laid. Undoubtedly, the members of the Provisional Government incurred, in common with the previous government,

a serious responsibility in not recognizing the danger of such a fantastic spirit, and in place of checking, actually encouraging its development by imprudent or unreflected measures.

Whether or no the same effects would not have been produced by the same initial causes, even without any change in the form of Government, is a problem that can never be solved, but which possesses every element of possibility judging from the course events were already taking in 1889.

A prudent and cautious administration, *might*, perhaps, have saved the situation, but it is doubtful if at that period such an administration could have been collected, or, if found, could have for long resisted the pressure and contagion of the speculative mania that swept all before it.

If, therefore, it be remembered, that the very members that composed the new government were already victims of the prevailing contagion, in common with the rest of the community, and compelled to see everything of a golden hue through glorified spectacles, the extraordinary spectacle that Rio Janeiro exhibited from 1889 to 1891 becomes more intelligible, and the conduct of the provisional Government more excusable.

That under the intoxicating influence of this contagion all warnings were set aside on the mere croakings of hopeless pessimists or *"Sebastianistas,"* was natural; and only similar to what has happened in every other country where a similar epidemic has matured. Such was the experience of Law's magnificent scheme to enrich humanity by unlimited emissions of paper-money. Its disastrous failure, however, did not prevent the equally disastrous " South Sea Bubble," nor the unlimited issue of assignats again in 1800, nor the repetition of similar disasters in 1889-90 in Buenos Aires, nor did it in Brazil itself nor anywhere else, and never will, because men must, individually and collectively gain their own experience, and are either unable or unwilling to profit by the experience of others.

The stability of all bodies, organic or inorganic, as of our social system, depends on the equilibrium of its component atoms or elements. The simple introduction or contact of a foreign element is often sufficient to destroy that equilibrium, never to be regained.

In the same manner the financial equilibrium, so laboriously and artificially realized in 1889, was destroyed by the action of two foreign disturbing elements; *Speculation* the offspring of the very prosperity it was destined to destroy, and *Revolution* with its fundamental disturbance of ideas and institutions.

Had either of these two disturbing factors acted alone, its effects would have proved less complete and less painful.

Speculation alone would have caused much injury, but duly observed and checked by a prudent administration, its results must have been ephemeral and easily remedied.

The effects of the Revolution, or rather evolution, of 1889 would similarly, have been less injurious had it not *coincided* with the development of the speculative mania; and thus precipitated and exaggerated the fall of exchange, inevitable in any case.

To such a combination of extraordinary circumstances and permanent causes must be attributed the origin of the last great depreciation of the currency; the responsibility for which corresponds neither to this nor to the late regime, *but to both*; and if to one more than another then rather to the Empire, because the financial policy pursued by the Republic was but the logical sequence of that previously initiated and put into execution.

Comparison of the Economical and Financial Situation in 1861-1864; 1886-1889; and 1893.

PER CAPITA		1861-1864	1886-1889	1893
Value of exports		17$817	16$460	19$073
" " imports		13$914	14$667	17$749
Foreign charges		1$690	2$155	2$146
Imported capital		1$246	2$355	0$681
Foreign debt exclusive of NATIONAL LOANS (gold)		9$227	18$315	18$693
Currency in		10$556	14$774	42$282
Total debt (exclusive of floating debt)	MAXIMO	28$333	61$661	92$175
	MINIMO	27$709	26$802	58$149
Expenditure	gold	6$413	11$334	8$319
	paper	6$034	11$359	16$194
Ordinary Revenue	gold	5$816	9$998	6$898
	paper	6$034	11$359	16$194
Deficit	gold	0$597	1$336	1$422
	paper	0$602	1$999	3$361
Exchange, 90 days rate.	pence	2		
Ratio of imports to exports	%	81.5	89.1	93
" " FOREIGN CHARGES to exports	%	9.6	12.1	11.2
Ratio of IMPORTED CAPITAL to exports	%	7.6	14.3	3.2
Ratio of IMPORTED CAPITAL to *Activo*	%	6.8	12.0	3.1

Comparing the statistics for the year 1893 with those of the period 1865-1867 it will be found that the value of exports has increased only 7 %; from 17$817 to 9$073 gold per head, whilst

imported capital has fallen off from 1$246 to 0$581 gold per head. On the other hand the value of imports has increased from 13$914 to 17$744 per head, or 69 per cent. whilst foreign charges have simultaneously grown from 1$690 to 2$146. Consequently, whereas in the period 1861-1864 the balance of trade was uniformly favourable and the international debit or *passivo* only represented 91.9 per cent. of the *activo*, in 1893 the balance was unfavourable and the *passivo*, exceeded the *activo*, by 12 per cent.

The economical situation in 1893 has, therefore, greatly deteriorated if compared with 1861-1864, the total available resources being insufficient to satisfy the international obligations of the country, but that this, in spite of the growth of foreign charges, has not affected *individual* prosperity is shown by a comparison of the balance that remained over after exports had satisfied the fixed foreign charges of the State in both instances.

In 1861-1864. Exports yielded Rs. 17$817 gold per head and in 1893 .... Rs. 19$073

In 1861-1864. Foreign charges cost Rs. 1$690 and in 1893.. " 2$146

In 1861-1864 a balance remained of Rs. 16$127 and in 1893 of .... " 16$927

In 1893, therefore, the balance that remained per head after payment of all taxes was only very slightly less than in 1861-64; but if this result is compared with that of 1886-1889 the advantage is all in favour of the present.

In 1886-1889 Exports yielded an average of..........................	Rs. 16$460	gold per head
In 1886-1889 Expenditure amounted to	" 11$334	" " "
	Rs. 5$126	

Leaving a balance disposable of Rs. 5$126; compared with Rs. 10$753 gold in 1893!

There can be little doubt, therefore, as to which period was more advantageous to production, and to the development of the most important industries of the country.

If the same comparison be instituted on a paper-money basis the advantage becomes still more apparent.

The value of exports yielded	1886-89	1893.
an annual average of....	Rs. 18$106 paper,	Rs. 44$783 paper
National Expenditure amounted to................	" 12$858 "	" 19$552 "
	Rs. 5$248 paper	Rs. 25$231 paper

In 1893, therefore, although the annual expenditure had increased 75 per cent. if estimated at its nominal value the balance that remained over after exports had satisfied all expenditure was almost five times greater than in 1886-1889! Unless, therefore, the cost of production had also risen in a similar ratio it is unquestionable that production and exports must have realised a far higher rate of profit both real and nominal, than in 1886-1889 when exchange was at or near to *par*.

It has been shown that the cost of production has *not* risen in proportion to the price of exports; on the contrary that wages have suffered a depreciation of about 30 per cent, in their real or gold value, whilst the rise in their nominal value has been only at the rate of about 16 per cent, and the cost of other expenditure, including that on account of rent, taxes and even of imported merchandize, if it has risen more than that of labour, has not done so in the same proportion as the value of exports themselves.

During the period 1861-1864, we have seen, the balance that remained over after settling all foreign charges was Rs. 16$127 gold per head, whilst in 1893 it had increased, in spite of the simultaneous growth of the burden of foreign charges, to 16$927 per head. If, then, the tax-payer preferred in 1893 to liquidate his balance by receiving its equivalent in the shape of imported merchandize instead of bullion, as in 1861, this cannot alter the fact that in 1893 he disposed of a larger amount per head than he did previously. In point of fact, he not only imported goods to the value of the balance that remained over to him after satisfying fiscal exigencies, but actually encroached on the moiety that was requisite to meet those charges, so that the total international debit or *passivo* exceeded the value of exports by 12 per cent, and that of the total resources or *activo* by 7 per cent.; and thus upset the balance of international payments. The importation in 1893 was, and still is, therefore, unquestionably excessive; not because exports alone were insufficient to pay for them—as imports represented only 93 per cent. of the value of exports—but because they were insufficient to cover both the value of imports and that of foreign expenditure of the State as well.

The excessive importation has been liquidated hitherto by means of the assistance of foreign capital; but such a system must necessarily come to an end some day, when the Country will learn that nations, like individuals, cannot "have their cake and eat it too"; and that, if they will insist on forestalling revenue and hypothecating the future without any effort at curtailing their individual expenditure of foreign or imported goods, they are thereby accumulating a burden of debt that will some day become unbearable, and must end in disaster and discredit.

The problem that we proposed to solve at the commencement of this analysis is therefore decided in the negative; and exports proved to have been absolutely insufficient without the periodical assistance of foreign capital to satisfy the foreign obligations of the country. Fixed charges alone, it has been seen, exact from 11 to 12 per cent. of the value of exports, whilst imports demand payments equivalent to 93 per cent! Unless, therefore, either foreign charges or the value of imports can be reduced, either bankruptcy or the periodic appeal to foreign credit *is inevitable.* Foreign fixed Charges are incapable of further reduction, at all events for the present; the only resource, therefore, is to reduce the value of imports, the *sine-qua-non* of economical equilibrium.

It is not that the debt of the country is excessive, on the contrary it compares most favourably with that of far less productive countries; nor yet that it is disproportionate to the value of production and exports, of which its charges only represented 11,2 per cent. in 1893 (whereas the service of the Argentine debt, if it were paid integrally represents 34.7 per cent. of the value of exports in 1894) but that we are unwilling to curtail our expenditure or deny ourselves the luxury of spending more than we can afford on foreign wares, whilst the *modus operandi* both of the inconvertible currency and of the defective fiscal system of collecting duties on imports both conspire to exaggerate the tendency towards extravagant importation.

Resist as we may, reduction of the value of imports must ensue eventually; as it is impossible either to continue indefinitely to liquidate the excess by means of foreign loans, nor to leave it unpaid. The sooner, therefore, the better.

If we are to compare the relations of the taxpayer in 1861-64 with that in 1893 we shall see that the position was not so advantageous.

	1861-64	1893	
Exports yielded.....	Rs. 17$817	Rs. 19$073	per head
Expenditure was....................	" 6$413	" 8$320	" "
The balance that remained was	Rs. 11$404	Rs. 10$753	per head

The inevitable conclusion that must be drawn, therefore, is that howsoever inconvenient the depreciation of the currency may have been from a financial point of view, it has proved a real advantage and stimulus to the productive industries and exports.

It is sometimes pretended that the advantages gained by these industries must be acquired at the cost of labour, and that the fall in the rate of wages represents an equivalent injury

inflicted on the most deserving class of the community. This, however, is not so certain; on the contrary there is every reason to believe that the rise effected in the nominal rate of wages already counterbalances the general rise of prices, and that the *value* of wages, that is their general purchasing power, has undergone no reduction whatever. If, however, the price of wages does not, in fact, correspond to the general rise of other prices, the excessive demand for labour may be trusted to raise it to its proper level, so that the same standard of living which labour previously exacted will be maintained whatever exchange may be.

The total indebtedness of the country including the paper-money in circulation has increased 190 per cent. per head since the period 1861-1864, and 49.4 per cent. since 1886-1889. The increase has been greatest in paper-money, emissions having increased 300.3 per cent. per head since 1861-1864, and 186 per cent. since 1886-1889; the internal debt likewise registers an enormous increase of 234 per cent. per head since 1861-1864, but only 20 per cent. since 1886-1889. The increase of indebtedness of every description internal and foreign without any serious attempt at amortisation of the former is unquestionably the most unsatisfactory feature of national finance; but is inevitable so long as we continue to import more than we can pay for, and until expenditure is balanced by revenue.

Putting aside the consideration of relative indebtedness, it is unquestionable that if the financial situation of the country has greatly deteriorated since 1861, it is because proper measures have not been adopted to ensure the equilibrium, and not because the economical condition of the nation has suffered; on the contrary it has vastly improved if compared with the period 1886-1889.

CONCLUSION.

Reconstitution of the Financial and Economical Equilibrium.

The problem to be solved is not so much how to raise the value of the currency as how to maintain it at an uniform and constant value.

The artificial improvement of its value has been shown to be as unjust to debtors as a similar depreciation would be to creditors; whilst it is an accepted fact that what really injures both trade and industry is, neither a high nor a low, but the *oscillating* value of the currency; and although opinions may differ in other respects, they are unanimous in condemning the injury that the unceasing alterations of values, and the speculative element that they introduce, inflict on every class of business. If, then, it were possible to communicate a stable value to the currency it must be advantageous to all concerned, and go far to checkmate the manœuvres of Speculation in exchange, which only continues to exist on the chance of the wide margins.

Any prospect of Exchange again reaching *par* seems, in view of the enormous mass of paper-money to be operated on, to be indefinitely postponed. The fall of exchange during the last six years to a lower point than it ever previously reached has been mostly compensated by the gradual adjustment of all prices to suit the new conditions thus evolved, but not without trouble and resistance in regard to the price of labour, at least. If the currency were again to rise to *par*, prices and values must be again disturbed, and provoke an inverseresistance to the inevitable reduction of wages by Capital, and a fresh disorganization of the relations of Labour and Capital. Such constant friction is dangerous, unhealthy, and certain to provoke an antagonism as determined as that which separates the two classes in Europe.

This antagonism, which is surely an anomaly on American soil, where the excessive demand should ensure the equitable remuneration of labour, is, nevertheless, indisputably progressive in the Argentine Republic, and owes its origin, we are convinced, to the disturbing factor exercised by the oscillating value of the currency. Similar causes must produce in Brazil as elsewhere similar effects, and if the immobilization of the

value of the currency produced no further result than the normalization of the relations of Labour and Capital it would even then be well worth attempting.

If then the resumption of specie payments or the attainment of *par* value by the currency appears to be indefinitely postponed, the only means of arriving at any definite stability in the value of the currency consists in reducing its *par* value to such a rate as is not likely to be again disturbed.

The reduction of the *par* standard value has been several times proposed, though always at a rate in excess of the actual depreciation. Thus the *Jornal do Brazil* proposed some time ago to reduce the standard value from 27 to 17 pence.

There can, however, be no advantage in fixing the standard value at any rate that would exact any effort to raise the value of the currency to that level, as this would entail all the disadvantages and confer none of the advantages of such an operation. The injury that a reduction of the standard value would inflict on certain classes of creditors would, as has been shown, be limited almost exclusively to the holders of internal bonds (*apolices*) payable in currency, who would thus be debarred from any contingent advantage that a possible appreciation of the currency might confer; but even so the permanent depreciation would be more apparent than real, one of *price* rather than of value, and would probably be preferred to the almost certain further depreciation that must ensue, unless some measures are adopted to realize the economical equilibrium and check the fall of exchange.

If then the standard value were to be reduced at all it is well that the measure should be *radical*, as otherwise it must fail in its objects. The present rate at which exchange has now oscillated for some years 10 *pence* might then be advantageously adopted as the new standard value of the milreis.

All previous obligations contracted in gold on the basis of 27d. to the milreis, it is of course understood, would be respected.

The reduction of the standard value would then ensure some permanency in existing prices and values and thus ensure to production, for some years to come at least, the unquestionable advantages that a low rate of exchange confers. These may be recapitulated as follows:

1st. A low rate of exchange reduces the cost of exports and raises profits thus stimulating production, and counterbalancing in some degree the injury inflicted by *protective* tariffs.

2nd. A low rate of exchange tends to reduce the profits of foreign capital employed in the country, and to lower the cost of freights and of production generally.

3rd. A low rate of exchange enables the administration to be carried on at a less real cost and, consequently, with a less sacrifice on the part of contributors.

On the other hand the disadvantages are not numerous:

1st. A low rate of exchange tends to stimulate importation even more than exportation, and thus to perpetuates and exaggerates the disequilibrium of international payments.

2nd. It tends to reduce the real value of revenue and increase the nominal value of taxation, and to perpetuate deficits.

It is clear that unless simultaneous steps are adopted to neutralize the disadvantages that a reduction of the standard value would operate, little real benefit could result from such a measure. No equilibrium of international payments can be assured unless the stimulus to importation, that the low rate of exchange and the system of collecting duties of their nominal value confer, is neutralized. This can only be effected by an increase in the rate of duties charged, and by their recovery on a gold basis in proportion to the metallic expenditure of the Nation. Unless the equilibrium of international payments is thus assured no reduction of the standard value can produce any relief, and exchange would continue to depreciate again, as has occurred in Chile, and previously in Brazil, where the *par* value of the milreis has already been twice reduced, once in 1833 from 67½ to 43½ *pence*, and again in 1846 to 27 *pence*.

To reduce foreign charges is not practicable, whilst to increase exports demands both time and patience. The only alternatives that remain are to either reduce the value of imports, or to continue the ruinous system of borrowing.

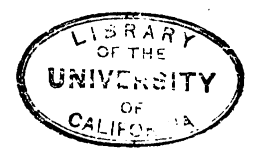
The advantage of foreign trade consists in it enabling us to exchange our superfluous products for the greatest quantity attainable of useful or agreeable objects that we ourselves are unable to produce except at a much greater expenditure of labour, or of an inferior quality. The greater the quantity and value of the imports we receive, therefore, the greater should be the advantage secured. This, however, would only be a positive advantage if it were the result of an exchange of products such as has been indicated, and disappears when it is in part acquired by hypothecating the future. This is what actually occurs. Brazil imports more foreign goods than her resources permit her to pay for, and trusts to foreign capital to liquidate the balance. To put a stop to this excessive importation must, therefore, be the *sine qua non* of the economical equilibrium without which any attempt at improving the value of the currency is but labour lost.

The only remedy is the increase of duties on imports, but care must be exercised that such an increase shall augment as little as possible the cost of production and exports, by exempting as far as possible the commodities indispensable to those industries; as, otherwise, the desired shrinkage of imports may be accompaniod by a simultaneous but unwelcome reduction of exports as well. If in 1889 consumers could afford to pay a duty an imported goods equivalent to 43 per cent. on their real value, they can afford it still. The return to the *statu quo* of 1889, which would be similar to the collection of duties wholly in gold, would be equivalent to an increase of 48 per cent. of the existing duties (1894) and has been shown to be unnecessary to secure the financial, equilibrium; but a similar or even greater increase of duties may be necessary to secure that of international payments; and if the collection of part or the whole of the duties in gold or on a gold basis proved insufficient to reduce the value of imports, the duties must be again advanced until the equilibrium of payments is definitely attained. Unless such successive increase of duties were accompanied by an internal or excise tax, they must result in a falling-off of revenue; so that the economical equilibrium would be attained only at the expense of the *financial*. The problem is *dual*, both financial and economical, and no measures taken to ensure one independently of the other are likely to give any but a purely transitory relief. When once the true causes of the disturbance are fully recognized it becomes possible to adopt the necessary measures to remove it, and to formulate a definite policy to secure a simultaneous and lasting return of both financial and economical prosperity.

Such a policy may be summed up in the following programme.

No more loans, or guarantees.
No more Deficits.
More stability of exchange.

FINIS.



ERRATA.

Page

7. Sum of the official valuation of exports; for 649.452:054$, read 6498.402:054$.

15. Table of the Movement of Imports; for 1890-1862, read 1890-1892.

25. On 35th line, for "Unless every increase of foreign charges is accompanied by a positive increase of imports" read *increase of exports.*

40. For the period 1861-1867 read 1861-1869; and for the real or gold cost of the service of the internal debt for same period, in lieu of 74.098:820$ read 4.098:820$.

50. Service of the foreign and national gold debt for 1890-1892; in lieu of 83.609:124$ read 89.609:124$; and for the service of the total federal debt 1886-1889, in lieu of 45.570:506$ read 42.570:505$.

59. Receipts and expenditure of the Santos Ry; for period 1871-1885 read 1876-1885; and for the annual expenditure 1886-1889, in lieu of 1.712:014$ read 2.712:014$.

63. Receipts of all foreign guaranteed railways; for period 1888-1890 read 1886-1889.

76. Table of foreign capital invested in Brazil; for period 1891-1892, read 1890-1892; and in the column showing total expenditure, for 970.461:188$, read 976.461:188$.

79. Annual average charges for profits of foreign capital; for 6.344:156$ read 6.944:156$.

94. Comparison of French valuations of coffee with Rio prices; for 34.326:000$ read 35.326:000$.

108. Corrected local valuations of imports for 1879-1888; in lieu of 1041.820:432 read 2.041.820:323$. And for the Ratio of local valuations to foreign valuations of imports; in lieu of 981 %, read 98.1 %.

132. Foreign expenditure of the Ministry of Agriculture; in lieu of 6.126:278$ read 6.146:278$.

138. Line 21, for "And the value of the currency rose 17½ pence to par," read "*from 17½ pence to par.*"

161. Total value of notes in circulation 1876-1885; for 205.534:869$, read 204.271:286$.

173. 36th line, for "In gold it represented a dividend of 16.7 %" read 18.7 %.

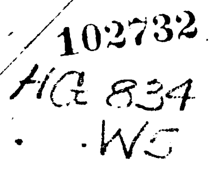
185. Lines 5 and 20, for 1861-1869, read 1864-1869.

186. Line 4, for 16.6 %, read 18.6 %.

188. Line 22, for guarantee amounted to 33.079:037$, read 32.079:037$.

197. Table at foot of page, for Value of imports duty paid = 609.136:491$, read 909.136:491$.

198. Line 35, for in 1893 the revenue obtained from imports was 169.005:000$, read 196.005:000$.


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